GOVERNMENT OF BENGAL.

REPORT

ON THE

ADMINISTRATION OF BENGAL

DURING

1917-18.

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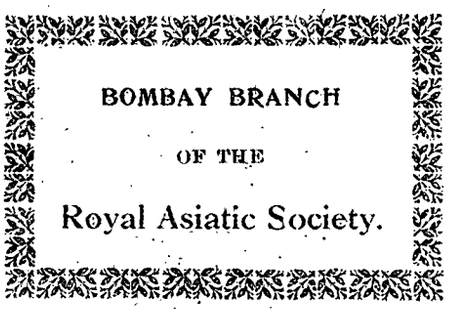

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REPORT

ON THE

ADMINISTRATION OF BENGAL,

1917-1918.

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CALCUTTA :

THE BENGAL SECRETARIAT BOOK DEPOT.

1919.

[*Price—Indian, Rs. 4-8; English, 7s.*].

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ADMINISTRATION OF BENGAL, 1917-18.

PART I.—GENERAL SUMMARY.

The war, the condition of the people and the Press.—The disturbing influences of the war have left no phase of life untouched, and no class of the population unaffected, while war loan and recruitment propaganda have, on the other hand, carried into the villages some conception of the magnitude and issues of the struggle. Financial stringency continued to hold in abeyance all but the most urgent projects of Government; the flow of labour was disturbed, transport facilities curtailed. The great mass of cultivators and labourers, incapable of visualizing the war, save as some dim malignant influence, found themselves harassed by inconveniences, the causes of which they imperfectly understood. Though in general the crops were good, and food stocks plentiful, the cultivator endured with puzzled patience a great increase in the price of salt, cloth, sugar, kerosine oil, firewood, molasses, and all the imported goods on which his daily life depends, and saw himself deprived, at the same time, by export difficulties and the dislocation of trade, of the compensation of good prices for his harvest. Nor was there absent the aggravation of a deep-seated belief that this enhancement of prices, particularly in the case of cloth and salt, was artificially fostered by the machinations of middlemen.

That on the whole prosperity prevailed may be inferred from the absence of any widespread disturbance, though an outbreak of looting of *hâts* or village markets, which occurred in several districts at the beginning of the cold weather, caused some anxiety. Crime indeed increased, but it was rather the result of a greater activity of individual criminals than the product of any economic cause. Military service in the Bengali Regiment, despite the enthusiastic welcome of the press and an energetic recruitment campaign, was slow to make a wide appeal. The first Battalion, recruited almost exclusively from the *bhadralok*, or better classes, was however completed and sent to Mesopotamia in the autumn, and towards the close of the year the labouring classes enlisted in increasing numbers. Though the outlet afforded by labour corps for war service was not seized with undue avidity, Bengal maintained a continuous supply of marine ratings and skilled and unskilled labour for overseas railways and transport, but the opportunities presented by the Indian Defence Force were not fully utilised.

The interests of the literate classes, if one may gauge these from the tone of the press which caters for them, were directed throughout the year more to domestic politics than to the wider issues of the world war. The announcement of Mr. Montagu's visit excited a vigorous discussion of Home Rule with demands for substantial changes.

Events external or internal that were at all relevant to the question—the Russian Revolution and the Irish problem abroad, the Congress and the Hindu-Musalman *rapprochement* at home—gained additional interest, while the attitude of the Anglo-Indian press provoked critical rejoinders. By one section of the press the activities of the police in dealing with anarchism and their action under the Defence of India Act were attacked with sustained hostility: success was denied or belittled; a sympathy withheld from the police in their labours and dangers was expended liberally on the *détenus*, while to the existence of a revolutionary conspiracy necessitating repressive measures credence was refused with stubborn scepticism. It is more agreeable to record the loyal exertions of the majority of the press, Hindu and Musalman, to popularise recruitment and the war loan, and their settled confidence, despite occasional despondency, in the justice of the Allied cause and its ultimate triumph.

2. **Commerce and Industries.**—It has been said that the agricultural classes felt with increased poignancy the effects of the war. Its influence in the sphere of industries and commerce, though drastic, has been in many ways benevolent.

The demand for labour was great. The Asansol coal mines were fully engaged, and offered employment in excess of the supply of labour. The mills and factories flourished through the abnormal demand for jute fabrics, giving daily employment to 260,000 labourers. Tea had a most successful year. Certain indigenous manufactures, sugar and molasses, the weaving of towels and coarse wearing apparel, silk, and oil, received a definite stimulus from war-created conditions; ship-building activities in Chittagong expanded: and a jam canning industry and a button-making enterprise received the solid encouragement of large orders from the army.

Promises of permanent improvement in the industrial condition of the Province are not wanting. The stimulated vitality indicated here has been accompanied by a definite effort at improved organization. The home industries of the Province, which, it is calculated, supply means of livelihood to nearly one million people and contain valuable elements of indigenous art, have awakened wide and sympathetic interest. A privately organized body, the Bengal Home Industries Association, came into existence in March 1917 with the object of fostering this branch of industrial activity and freeing the artisan from the domination of the *mahajan*, or money-lender. It has already given an earnest of its capacity by helping to dispose of products to the value of upwards of £2,000. A special officer of Government was appointed during the year to enquire into the cause of the decline of indigenous handicrafts and has made constructive suggestions, action on which only waits upon the results of the Industrial Commission. The appointment of a Director of Industries for the development and diffusion of industries in Bengal was considered a necessity sufficiently urgent to override any financial stringency, and was established in September.

In the larger organized industries private enterprise has anticipated such assistance. The development in the local tanning of hides, which

were previously exported raw had reached a stage worthy of comment in this report last year. The possibilities of this industry may be inferred from the fact that 13,000,000 skins and 10,000,000 raw hides were exported annually from Calcutta before the war. Restrictions on the export of hides, and on the import of leather manufactures, together with the large demands for leather for war purposes, have caused the reorganization of existing tanneries, and called new ones into existence. Two of these will together turn out 50,000 hides a month, and have been offered orders for the monthly supply of 25,000 pairs of boots. A similar progress shows itself in the local manufacture of vegetable oil, exports of which have risen in the year by 81 per cent. in quantity and 125 per cent. in value, while the export of seeds has diminished. The jute industry led the way in countering the restrictions on imports of metal and machinery, by organizing in Bengal the manufacture of the subsidiary articles essential to the mills. The expediency of a similar policy has impressed the tea industry. The insatiable demands for iron and steel occasioned by the war called forth an increase in the output of metal by the Bengal Iron and Steel Works, a concern of many years' standing, and led to the flotation during the year of a new company, with large capital, which will undertake the manufacture of iron and steel at Asansol, the centre of the coal area. The latter of these has, since the close of the year, developed a subsidiary enterprise for the construction of standard rolling stock. Sulphuric acid is already manufactured in Calcutta and caustic soda will shortly be turned out on a large scale. The requirements of the tea industry in tea chests, hitherto satisfied by importations, may shortly be supplied from organisations in Bengal and Assam. Pruning knives were manufactured in India from Tata steel for the first time by a Bengal firm, whose example is being followed largely; and the firm of Messrs. Herbert has decided to establish in Bengal a factory for the supply of machine tools to the Indian market.

Other examples of this quickening impulse might easily be quoted. The foreign trade of the Presidency, of which 96 per cent. passes through the port of Calcutta, illustrates in the vicissitudes of its staple components the conditions which have produced it. Notwithstanding the wide extension of the principle of control over exports, the loss of markets, the shrinkage of tonnage, and unsettled exchange, the total volume of trade, while showing indeed a decline on last year's record figures, falls little short in value of pre-war standards. The general inflation of prices argues a considerable quantitative reduction both in exports and imports: but there is every indication that trade was prosperous during the year.

When, however, the statistics of separate items are examined in detail, the drastic modifications brought about by the war are at once apparent, and it is impossible to forecast the permanent features which will survive the present fluctuations and the subsequent readjustments. Imports of metals and machinery have receded to dimensions smaller than they have been for nearly 40 years. Railway rolling stock, imported into Calcutta to the value of 5½ crores in 1913-14, shrank to 29 lakhs. Only 101 tons of pig iron were received from abroad, while imports of

wrought iron, now about one-fifth of pre-war figures, were less than they have been for 30 years.

The total value of Bengal's export trade for the year is but 3 per cent. below the quinquennial average at the outbreak of war, yet a comparison of the ratio borne to the whole by individual items and a consideration of their distribution show enormous changes. Jute and tea are the principal commodities involved. Both are vital war requirements. The export of raw jute was restricted: the local mills consumed three times the quantity exported, which comprised larger shipments on Government account, supplies to home spinners authorised to purchase by the War Office, and consignments to Allied countries. While in consequence exports of raw jute constitute a greatly reduced fraction of the total exports, the manufactured product aggregated 59 per cent. of the total export trade of Calcutta and reached the enormous total value of 42 crores of rupees. The requirements of the belligerents were vast enough to compensate for the closing of the Central Powers' markets. The Crimean War, by cutting off the supplies of Russian flax and hemp, originally set the jute industry on its feet. The American Civil War established it by producing a cotton famine. The present war has carried the trade to unexampled prosperity. In the last three years the Calcutta mills have furnished the Allied Governments with 1,500 million sand bags. Calcutta's export of bags rose from 367 million in 1913-14 to 802 million in 1916-17, and 755 last year, when Government orders alone amounted to 458 million bags and 210 million yards of cloth.

Tea exports represent 15 per cent. of the Presidency trade. From 1st November all tea for the United Kingdom was brought under the disposal of the Food Controller in London, acting through a Tea Commissioner in India. A large percentage of the produce of each garden was taken over, and the Controller of Shipping supplied freight, while export on private account was prohibited. Under this system 39 million pounds were exported for the War Office and 70 million for the Food Controller. Exports from Bengal reached the vast total of 280 million pounds of a total Indian export of 360 million, and constitute a record. Two hundred and seven million pounds went to the United Kingdom. Enormously increased quantities were shipped direct to Canada, the United States and Africa, influenced doubtless by temporary shipping conditions. The consumption of tea in India itself grows steadily and is sedulously fostered.

Thus, while Bengal produced about one-fourth of India's tea output, her export trade handled three-fourths. Her contribution of coal bears the same proportion to the whole, the neighbouring province of Bihar and Orissa supplying all but a fraction of the rest. Government requisitioned practically all first class coal, and a special committee was appointed early in 1917 for the control and distribution of all coal not absorbed by naval, military and railway requirements. This arrangement gave place in October to the appointment of a Coal Controller stationed in Calcutta to supervise the distribution of coal on both State and private account. When Government requirements had been satisfied, freight difficulties had to be surmounted, and the returns show a volume of export trade on private account amounting to less than one-fourth of

pre-war dimensions, and to about 6 per cent. of the total production of the country.

The United Kingdom's share in imports diminished to 57 per cent. of the whole volume, and in exports to 24 per cent. Since the war began both Japan and the United States have largely increased their interests alike in the import and export trades. Japan supplied 77 per cent. of the glassware, beads and false pearls, almost all the bangles, and a growing share of the plate and sheet glass.

3. **Port Trusts.**—The working of the ports of Chittagong and Calcutta exhibits with a distinctness almost diagrammatic the reaction of the war upon trade. In the smaller port of Chittagong the normal sources of income were affected to an extent requiring mitigation by the grant of a Government subsidy amounting to Rs. 1½ lakhs, to be continued annually till the termination of the war, by the raising of port dues from 12th August 1917, and by the imposition of a surcharge of 100 per cent. on mooring and unmooring charges from the 1st March 1918. The Port of Calcutta showed a large debit balance at the end of 1914-15, which was extinguished by the imposition of surcharges in later years. The year under report saw the introduction of unrestricted submarine attacks on all vessels, not only affecting the port by the loss of shipping destined for Calcutta, but causing a withdrawal of tonnage from Eastern waters to meet losses in Europe, and by the diversion of ships to the Cape route, reducing the number of voyages made by each. The net tonnage of the port for the year stands at less than half the pre-war total, and the number of arrivals and departures has been similarly reduced. To meet the resultant shrinkage of revenue, it was necessary to resort to a further enhancement of the surtax charges, which were raised on the 1st August 1917 to double those in force at the beginning of 1915.

4. **Agriculture and the Land.**—The Department of Agriculture concentrated its attention on extending the distribution of an improved rice seed, and an improved jute seed. The normal area under rice in Bengal is 22 million acres, of which three-fourths is the winter crop. Altogether 160,000 lbs. of a very superior rice seed were distributed in 1917 on conditions likely to secure seed for 100,000 acres in 1918, and a subsequent intensive distribution. Similarly in regard to jute, which covers a normal area of 2½ million acres, the Kakya Bombai seed, selected from experiments with 500 varieties for a notable and demonstrable superiority in yield, is being introduced by the same system of intensive distribution. Simultaneously with these practical measures, research both in the mycology of plant disease, and in the comparative suitability of seeds, continues; while the water hyacinth, the prevalence of which for some years has endangered the waterways of Bengal, has been successfully used for the production of potash of considerable efficacy as manure. A further promising development is foreshadowed by the success of experiments with sunn hemp as a substitute for flax in the manufacture of canvas.

Experiments for the improvement of the cattle breed in Bengal are still in their infancy. At the Rungpur Cattle Farm two herds, the one

of pure indigenous cattle, the other of cross breeds by imported bulls, are maintained. Encouraging results have already been secured.

Though there are evidences of increasing interest on the part of the general public, the Department, at present short-handed, has still to contend with much apathy; and considerable expansion must be awaited before it can hope to deal expeditiously with the enormous task of popularising the use of improved seeds, methods or appliances. During the year the headquarters of the Director were transferred from Calcutta to Dacca, the main seat of the scientific work of the department. A scheme for a service of District Agricultural Officers has been sanctioned, and the reports of the districts in which such officers have already been employed warrant the expectation of success for the measure.

5. **Fisheries.**—The department was further relieved by the elevation of the subordinate department of fisheries to a position of independence under a Director of Fisheries in May 1917. The predominating physical feature of Bengal is the abundance of water, in its great network of rivers, in the frequent accumulations on its depressed surface and in the artificial tanks excavated to afford sites for houses and a drinking supply. Every sheet of water, from the largest river to the smallest pit by a roadside is exploited by the fisherman, with methods of infinite variety and often of great antiquity. Fish form the chief non-vegetable food of the majority of the inhabitants. Supplies of fish to Calcutta last year aggregated 24 million pounds, or 11,000 tons.

The possible activities of the Department therefore are of wide range, and the problems which face it in relation to the increase of the number of fish available are not more exacting than the necessity to release the fisherman himself from the dominance of the middleman by an organization of the trade. In spite of a small staff, extensive scientific investigation was made into the life history of fishes, the nature of fish parasites, and the methods of reproduction. The distribution of carp fry, from which predatory fish have been eliminated, has increased from 2½ lakhs to 11 lakhs in the last three years. A remedy for the shortage of raw material for the important industry of button-making has been sought in investigations into the cultivation of fresh water mussels; and while a solution of the problem on these lines is awaited, endeavours are being made to bring the manufacturers into touch with agents who supply marine shell, and to popularise a simple foot-machine to displace the present crude implements and laborious hand work.

Marine and estuarine fisheries still await development and promise a profitable field for enterprise, which is unhappily largely lacking. Transport difficulties operate adversely everywhere. An innovation, too long delayed, was made this year by the provision of cold storage vans on two of the main railways. But the Director of the Department sees in the domination of a powerful monopolist ring the most serious menace to the development of the immense possibilities of the fisheries of Bengal. For the removal of this and other difficulties the Director of Fisheries looks hopefully to the extension of the co-operative movement.

6. **Co-operation.**—Like the last named department, the co-operative movement was once a branch of the Department of Agriculture. Its marvellous growth in Bengal was traced in these pages last year. Notwithstanding the reaction upon the Central Banks of the strain on existing societies caused by the low prices obtained for agricultural products, and in spite of exacting caution in the admission of new registrations, that growth was steadily maintained. Five hundred agricultural societies were added during the year bringing the total to nearly 3,400. Thirty-four new non-agricultural societies were formed and the number of Central Banks increased from 47 to 52. Yet to some extent the initial period of enthusiastic creation has been succeeded by a period of careful guidance and control, and the machinery for this purpose has been largely extended. Three new Deputy Collectors with the powers of a Registrar have been deputed to assist the Registrar. The number of inspectors has been doubled, and a Chief Auditor with 14 assistants has been appointed. On the model of the Irish Agricultural Organization a society, styled the Bengal Co-operative Organization Society, Limited, has been inaugurated to train co-operative workers, organize a library of co-operative literature and carry on propaganda by means of English and Bengali journals. The scheme for the establishment of a Provincial Bank, which had reached an advanced stage before financial conditions brought about by the war postponed the fruition of the project, had been gradually anticipated by the automatic growth of a system of investment of Calcutta capital in various Central Banks through the Registrar. This was developed at the end of the last year into a Provincial Co-operative Federation to which within three months of its inauguration 28 Central Banks belonged. The Federation has not only attracted large sums of money transferred to it at reduced rates of interest by depositors from individual banks, but affords facilities to its members for the profitable interchange of their surplus funds.

It may seem, when the number of members so far enlisted by co-operative societies is compared with the vast population of Bengal, and when the difficulties of the handicraftsman, the agriculturist, the fisherman, which have already found casual mention, are considered, that the achievements of co-operation are small. Yet it has already driven the moneylenders of Bengal, who are the natural rivals which the movement aims at supplanting, to consider new outlets for their financial activities. It has brought a marked degree of relief and even prosperity to many; it has inculcated the principles of the elective system, of civic responsibility and of communal organization; it has created a widespread desire for literacy, and it has produced a strong movement, illustrated by some striking examples, towards social reform. Its organization has afforded the Agricultural Department a useful means of popularizing improvements in cultivation and seed. But though a hopeful demonstration was made this year with a *ganja* cultivators' society, it has not yet availed to eliminate the disastrous intrusion of the middleman between the producer and his market.

7. **Irrigation.**—Activity in the Department of Public Works has been confined to work either likely to be immediately remunerative or of

imperative urgency. The river systems of Bengal have been referred to in connection with Fisheries. Their bearing on the whole problem of communications is more immediate and vital, for while they offer in themselves a natural and efficient means of communication over immense areas, their existence influences nearly every project for the construction of a railway or road. The conservation and improvement of existing waterways consequently acquire an importance which explains the fact that the energies of the Irrigation Department are largely employed on the training of river channels and on canals constructed primarily for navigation. Extensive observations of land levels and accurate hydraulic data for large areas are a necessary preliminary to work of this nature. A detailed study of the history of the rivers in the Ganges delta, giving the changes which have taken place and the influences producing these changes, and examining tidal and other conditions, was completed by a special officer during the year. A perusal of the report affords an indication of the complexity of the problem, and the wide changes which a few years, or the smallest artificial interference with the flow of water, can produce. The people of Bengal are only too vividly aware of a sinister side to the activity of the great rivers. The floods in the eastern districts in 1915 and 1916, in the Damodar and Hooghly rivers in 1909, 1913, 1916 and 1917 produced widespread damage to crops, necessitated relief measures, and the latter have confronted the Irrigation Department with problems of flood prevention whose solution cannot be postponed.

8. **Public Health.**—The prevention and mitigation of malaria by scientific measures of drainage have also been vigorously undertaken. The prevalence of malaria in Bengal is well known. Every year there occur upwards of 400,000 deaths from this cause alone, while if the number of attacks that do not terminate fatally is considered, the mortality indicated above is a small fraction of the ravages of the disease.

His Excellency Lord Ronaldshay, in personally calling the attention of district boards in Bengal to the virulence of this malady and inviting their co-operation in the work of combating it, has announced, as one of his cherished ambitions, the desire to see during his tenure of office a big advance in the fight against disease. Measures for the prevention of malaria by the removal or modification of the conditions which favour it have been steadily pursued. Three varieties of mosquito, breeding in distinct environments, convey the parasite in Bengal. For each an appropriate method of extermination has been devised, and is at present under trial in a suitable experimental area. Where, as in the Duars, the mosquito breeds in open running water, underground channels have been constructed below the natural beds of the streams. Where a mild current favours the fly a combination of flushing and sub-soil drainage is employed. Over the flat deltaic tracts, which form the greater part of Bengal, shallow pools with a large amount of edge are the favoured breeding grounds. The methods employed here are either to flood the land at suitable periods of the year by the admission of a regulated supply of silt-laden water and to regulate the flow-off of rain water from the land, combined with a complete drainage of the area after the crops have matured.

The practical possibilities of the last method have already been triumphantly demonstrated by a large and successful drainage operation in the Sundarbans. The Irrigation Department have prepared other extensive projects designed on the same lines, which, judging by the experience gained in past experiments, will, by improving communications and bringing new soil under cultivation, rapidly repay the expenditure involved. As a practical proof, however, of its anxiety to forward such anti-malarial schemes, and as an incentive to the district boards themselves, Government has offered substantial contributions towards the financing of some of these projects, and has itself undertaken others of which the cost will be wholly borne by the State.

Government has also addressed itself to the preliminary work necessary for a wide campaign against ankylostomiasis, or hookworm disease. The prevalence of this disease in certain localities has been established by the independent enquiries of various medical officers. During the year a systematic enquiry was instituted in order to ascertain its prevalence and distribution in other parts of the Presidency, and examination was made of the inmates of 26 jails, covering practically the whole of Bengal. The ratio of infection in different districts varied from 48 to 86 per cent., and of 12,570 persons examined 8,973 were found to be infected, giving an average of 71 per cent. for the whole Presidency.

A committee appointed to consider the sanitary organization of the Port of Calcutta, with special reference to the action which should be taken to ensure its protection against yellow fever, finished its enquiry. Its report was submitted to Government after the end of the year and is now under consideration.

9. **Education.**—The general course of education reproduces the phenomena repeatedly observed in the past. While institutions of all classes increased in number, with a corresponding growth in the number of pupils, there obtained the same indifference to the low standards of secondary education, and the same keen appreciation of the material value of English as a passport to employment. Greater interest in primary education has been shown by the public, of which an outcome has been the introduction in the Legislative Council of a private bill providing for the introduction of compulsory primary education. This branch of education is making steady progress, its expansion being mainly due to Imperial grants. Funds, however, are still insufficient; the pay of teachers still below what efficiency demands. The inspection staff remains inadequate, and the curriculum defective.

10. **Police.**—The drain on the rural population of Northern India for war service diminished the supply of up-country recruits, leaving large gaps in the ranks of the Calcutta police; but local men sought employment in increasing numbers in the rural force, while the growing attraction of the service for the educated classes was shown by the enrolment of many graduates as sub-inspectors. It was possible to spend a sum nearly double that of last year on buildings. Much, however, remains to be done in this direction, as well as in the

division of unwieldy investigating centres, and the large number of resignations is disquieting.

The river system was extended during the year by the opening of the new Ganges division with five police-stations. A remarkable reduction in river dacoities in Tippera is adduced as evidence of the value of river patrols, which as an incident of their work rescued no less than 87 persons from drowning.

More gratifying still is the record of success in the bitter struggle with revolutionary crime. The number of outrages fell from 24 to 9, of which all were dacoities. Three were attended with murder, resulting in the death of six persons. For the first time since 1907 no police officer met his death at the hands of the revolutionary party, though one officer had a narrow escape while arresting a dangerous criminal who was armed with a revolver. The improvement in the situation is directly due to the preventive measures taken under the Defence of India Act and under Regulation III of 1818. The events of recent months have shown only too clearly that the party which seeks to attain its ends by violent crime is still active, but the record of the year is of hopeful augury. The nature and extent of the criminal conspiracy associated with the revolutionary movement in India were examined by a Committee appointed by the Government of India. The difficulties of dealing with the movement were considered, and a report with certain proposals for future action was published after the close of the year.

11. **Jails.**—The records of the Jail Department show that the life of the Bengal criminal is a healthy one. The ratio of deaths per mille has fallen in the last quarter century from 43 to 15·8 in the present year and is well below the provincial average. Marked success has attended the introduction of a wheat dietary to replace in part the rice diet customary among the people of the Province. It has produced a distinct decline in bowel complaints and in general sickness, and has been voluntarily adopted by considerably more than half the prisoners.

The jails of Bengal have a creditable record of contribution to the necessaries of the war. Large quantities of gunny bags and cloth, coir fibre, castor and mustard oil, 44,000 blankets and 856,000 bandages were supplied, while 600 prisoners were sent to various Labour Corps in Mesopotamia. The Juvenile Jail developed considerably as an institution for the education and reform of youthful criminals. A tailoring industry was introduced, and the manufacture of quinine tablets and treatments, so necessary in the treatment of tropical diseases, reached the total of 1,400,000 tubes of 20 tablets.

12. **Local Self-Government.**—The most interesting aspect of Local Self-Government at the moment is undoubtedly the development of village self-Government by means of village authorities.

Under the Bengal Local Self-government Act of 1885 the District Board is the administrative unit. The Local Boards are merely its agents, with restricted powers; the Union Committees, still further subordinate, have still more limited powers. The District Administration Committee of 1913-14, convinced of the necessity for a more

elementary unit, advocated the constitution of village unions, coinciding with the existing chaukidari unions which administer the rural police, and proposed the devolution upon them of most of the work in connection with village roads, water-supply and sanitation hitherto performed by the Local Boards. Since these proposals were put forward considerable progress has been made in the creation of new unions, most of which are conterminous with the chaukidari unions, and are grouped in localities where it is possible to secure for them the supervision of circle officers. While in some areas the unions have been content with a sluggish dependence upon the doles bestowed by the District Board, many have shown commendable enterprise in providing for sanitation, water-supply, and other local needs, and have willingly raised funds by self-taxation. Under the existing law, however, the system is faced with considerable difficulties. Though for practical purposes the personnel and functions of the Union Committees have been made to coincide as far as possible with the Chaukidari Panchayats, the two bodies are constituted under separate Acts. The members of the latter take office under fear of a penalty for recusancy, and their property is liable to distraint if they fail to collect the tax from which the rural police are paid. The former exercises such powers as it possesses by delegation from the District Board. To endow either body with the powers and functions of the other would threaten the success of each; for the object aimed at is to create a village authority competent to manage communal village affairs, including watch and ward, vested with the requisite powers of self-taxation, and exercising all these powers independently of delegation. Such conditions will constitute a real degree of rural self-government.

The creation of these conditions and the development among the people of a practical interest in their own affairs by developing an effective village organization with larger powers and fuller responsibility are the objects aimed at by the Bengal Village Self-Government Bill, the introduction of which was sanctioned during the year.

PART II.

CHAPTER I.—PHYSICAL AND POLITICAL GEOGRAPHY.

For—

Physical Features of the Country, Area, Climate and Chief Staples.
Historical Summary.
Form of Administration.
Character of Land Tenures; System of Surveys and Settlement.
Civil Divisions of British Territory.
Details of the last Census, Tribes and Languages.

See—

General Administration Report for 1911-12, Part II, pages 1—134.

Changes in the Administration.

Executive Council.

The Hon'ble Sir Henry Wheeler, K.C.I.E., C.S.I., was appointed a Member of the Bengal Executive Council in place of the Hon'ble Mr. P. C. Lyon, C.S.I., with effect from the 9th April 1917. The Hon'ble Sir S. P. (now Lord) Sinha succeeded to the permanent vacancy in the Executive Council caused by the resignation of the Hon'ble Nawab Sir Syed Shamsul-Huda, K.C.I.E., on the 8th June 1917.

The Hon'ble Mr. J. G. Cumming, C.S.I., C.I.E., acted as a temporary Member from the 25th September 1917 to the 6th March 1918 during the absence on leave of the Hon'ble Mr. (now Sir) N. D. Beatson Bell, and on the appointment of the latter as Chief Commissioner of Assam, succeeded to the permanent vacancy on the 29th March 1918.

Relations with the Tributary States and Frontier Affairs.

COOCH BEHAR.

[Annual Administration Report of the Cooch Behar State for the year 1917-18].

(Area 1,307 square miles; chief produce—rice, jute and tobacco; population 592,952; military force 202 men and 4 guns; annual revenue Rs. 28,10,369. Ruling Chief—Maharaja Jitendra Narayan Bhup Bahadur; family Tibetan or Dravidian origin; residence, Cooch Behar.)

His Excellency's visit to the State.

2. His Excellency the Governor of Bengal paid a visit to the State in February 1918 and laid the foundation stone of a new ward at the Sudder Hospital.

Council.

3. Since Mr. J. A. Milligan, M.A., I.C.S., joined his duties as Vice-President in 1916, the constitution of the Council has undergone no change. On the Executive side, 19 meetings were held, against 33 of the previous year. At 16 of these the Maharaja presided. On the Judicial side, the Council held 27 meetings, against 36 of the previous year. No meeting of the Legislative Council was held during the year.

State Railway.

4. The gross earnings of the Cooch Behar State Railway amounted to Rs. 2,69,878, while the working expenses were Rs. 1,30,061. The net earnings were 6·1 on the capital outlay against 6·82 of the previous year.

Finance.

5 The total revenue of the State amounted to Rs. 28,10,369 against Rs. 31,54,323 in the previous year, while the total expenditure amounted to

Rs. 29,71,377 against Rs. 30,78,494. The closing balance inclusive of Government money and deposits was Rs. 9,26,596.

Crops and condition of the people.

6. Notwithstanding scanty rainfall during the year the jute crop was normal and prices ranged between Rs. 3-8 and Rs. 10 a maund. The outturn *of haimanti* crops was above the average and prices ranged between Rs. 2-8 and Rs. 5. The outturn of the tobacco crop was slightly below normal and prices varied between Rs. 4-8 and Rs. 5-6 per maund.

The condition of the people was fair. The prosperity promised by a succession of plentiful harvests failed to materialise owing to the abnormal rise in prices of imported articles and the low prices of agricultural products.

Criminal Justice.

7. The total number of cases reported during the year was 2,696 against 2,432 in the preceding year. The percentage of conviction to total number of persons tried was 65·13 against 61·08 of the previous year. The number of persons admitted into jail was 419 as compared with 245 in the previous year.

Education.

8. The number of subdivisional higher English schools was 4 as in the previous year. The total number of pupils attending them rose from 1,068 to 1,090. The total number of recognised primary schools was 318 as in the previous year.

Public health.

9. The Victoria College continued to make satisfactory progress.

Small-pox raged in all the subdivisions and there were sporadic cases of cholera in almost all of them. The health of the State was otherwise good.

HILL TIPPERA.

[Administration Report of Hill Tippera for the year 1917-18.]

(*Area 4,086 square miles; population 229,613; revenue from the State Rs. 10,39,419; revenue from zamindari in British territory Rs. 9,00,523; chief products—rice and cotton; military strength—258 including officers; present Raja—Birendra Kishore Deb Burman Manikya, aged 35 years; family Indo-Chinese; caste Kshatriya; has male heir; residence Agartala.*)

His Excellency's visit to the State.

10. His Excellency the Governor of Bengal paid a visit to the State on the 4th March 1918 and opened the Carmichael Bridge and the Ronaldshay Road leading to Bishalgarh, and also an industrial and agricultural exhibition.

Political Agent.

Mr. J. Bartley, I.C.S., continued as Political Agent.

War Gifts.

11. His Highness the Raja offered a lakh of rupees to the War Fund of which Rs. 50,000 has already been paid and credited to the Government of India and a further contribution of Rs. 15,000 a year during the continuance of the war. In addition to these, other contributions and gifts to the extent of about Rs. 29,000 have been made by His Highness. To encourage recruitment for the army in the State, the Raja offered a cash donation of Rs. 25 or a free grant of six bighas of land to each recruit from his territory.

Revenue and Finance.

12. The total revenue of the State amounted to Rs. 10,39,419 against Rs. 10,39,778 in the previous year, and Rs. 10,60,771 the average of the preceding five years. The gross receipts of the State and the attached zamindaries amounted to Rs. 19,39,942 and with law charges recovered, refunds and deposits, the total amount was Rs. 28,22,405. The total expenditure amounted to Rs. 20,13,273. The Bank of Bengal loan has been fully repaid, the payment during the year being one lac besides Rs. 5,068 on account of interest and commission.

Protection.

13. The total number of offences reported to police was 1,243 against 1,028 in the preceding year, the number of persons arrested was 797, of whom 743 were sent up for trial; of these 417 were convicted and 158 persons were awaiting trial at the close of the year. The percentage of stolen property recovered was 33·1 against 36·6 in the preceding year.

Weather and Crops.

14. The rainfall was 77·04 inches against 86·66 inches of the preceding year, and 102·09 inches the average of the preceding five years. Owing to favourable rainfall in the first part of the year the outturn of paddy crops was on the whole good, but unfavourable weather conditions in the latter part of the year reduced the cotton crop by about half the normal yield.

Public health.

15. There were outbreaks of small-pox and cholera in parts of the State with a few deaths.

Condition of the People.

[Report on the Land Revenue Administration of Bengal for the year 1917-18.]

Agricultural classes.

16. The outturn of crops was generally satisfactory, but owing to the dislocation of trade due to the war, prices of the staple crops, rice and jute, were low. The material condition of the cultivating classes and of the land-holders was not, therefore, satisfactory, while the high prices of imported acticles, such as salt, sugar, kerosine oil, corrugated iron, and particularly of cloth, affected all classes of people. Some damage was caused to crops by floods of the rivers Ajay, Damodar and Silai in parts of the districts Burdwan, Hooghly, Howrah and Midnapore and by the floods of the Kuya and Maurakshi in the Murshidabad district. A sum of Rs. 1,20,328 was advanced under the Agriculturists' and Land Improvement Loans Acts.

Wages and salaries.

17. The demand for labour both skilled and unskilled was great and the labouring classes had plenty of work and earned good wages in the mills and factories in Hooghly and Howrah and in the coal mines at Asansol. Persons with small fixed incomes suffered severely on account of the general rise in the prices of imported articles in consequence of the war.

CHAPTER II—ADMINISTRATION OF THE LAND.

Realization of the Revenue.

[Report on the Land Revenue Administration of Bengal for the year 1917-18.]

Total collections.

18. The total number of estates paying land revenue was 97,806 against 97,607 in the previous year. Of these 91,972 were permanently-settled estates, 3,473 temporarily-settled estates and 2,361 estates held direct by Government. The total current demand of the year amounted to Rs. 2,78,56,900, showing an increase of Rs. 69,898 as compared with the previous year. The increase was due mostly to new settlements, resettlements and progressive increase of demands in temporarily-settled and Government estates. The total realizable demand of the year including the arrear, Rs. 18,24,690, was Rs. 2,96,81,590, out of which the amount collected was Rs. 2,72,97,443, being 91·96 per cent. of the total and 97·99 per cent. of the current demand as against 93·77 and 99·85 per cent., respectively, in the previous year. The bulk of the remissions, which aggregated Rs. 66,429, against Rs. 72,710 in the previous year, was allowed, as usual, in estates held direct by Government for such causes as failure of crops, diluvion, non-settlement of holdings and errors in accounts.

Collections in (a) Permanently-settled estates.

19. The total demand of permanently-settled estates amounted to Rs. 2,17,96,642 (Rs. 2,15,75,074 current and Rs. 2,21,568 arrear), of which Rs. 2,14,54,295 or 98·42 per cent. was collected. The current collections reached 98 per cent. in all districts except Midnapore, Nadia, Murshidabad, Faridpur, Bakarganj and Chittagong. The falling-off in Midnapore, Nadia, Murshidabad and Faridpur was due to the fact that part of the collections was received after the close of the financial year. The deficiency in Bakarganj was due to short payments made as in previous years, in respect of the estates belonging to the late Raja Sir Sourindra Mohan Tagore under the management of the Court of Wards, on account of its bad financial condition. In Chittagong it is mainly attributed to the difficulty of the tenants in selling paddy at a fair price and to reduction in the earnings of the agricultural labourers of the district who annually migrate to Burma.

(b) Temporarily-settled estates.

20. Temporarily-settled estates are divided into three sub-classes : (*1*) private estates settled with proprietors, (*2*) private estates leased to farmers and (*3*) Government estates leased to farmers. The total collections from all these three classes amounted to Rs. 17,02,701, being 95·09 per cent. of the current demand of Rs. 17,90,607, against 97·36 per cent. in the previous year. Of the total outstanding balance of Rs. 5,06,080, Bakarganj alone was responsible for Rs. 3,55,857, the major portion of which has since been realized as a result of the compromise of a civil suit against Government.

(c) Estates held direct by Government.

21. The estates held direct by Government comprise two sub-classes :— (*1*) estates belonging to private proprietors but managed by Government and (*2*) those owned by Government as proprietor. The total demand of these estates amounted to Rs. 56,75,094 (current Rs. 44,91,219 and arrear Rs. 11,83,875), of which Rs. 41,40,447 (current Rs. 33,94,615 and arrear Rs. 7,45,832) or 72·95 per cent. was collected, Rs. 65,060 remitted and Rs. 14,69,587 left unrealized at the close of the year. A sum of Rs. 1,35,571 was collected during the year but could not be credited in the accounts. There was a decrease both in current and arrear collections ; this is generally attributed to the low price of jute and paddy and the dearness of cloth and other necessaries of life which made it difficult for the tenants to pay their rent in full. In the Contai subdivision in Midnapore, arrears have accumulated for the last three years owing to the straitened circumstances of the tenants due to the great flood of 1913.

Miscellaneous land revenue.

22. The total collections amounted to Rs. 27,93,748, against Rs. 32,13,056 in the preceding year. The decrease is due to smaller recoveries during

the year under the head "Recovery of survey and settlement charges". Out of the total collections of Rs. 1,67,379 under "Other receipts" a sum of Rs. 57,325 was realized from the Burdwan Estate on account of *pulbandi* contribution.

Changes in the land revenue demand of temporarily-settled estates and estates under direct management.

23. There was a net increase of 46,772 acres in the area of land settled and of Rs. 73,366 in revenue.

Redemption of land revenue.

24. The total number of petty estates and holdings the land revenue of which was redeemed during the year was 328. Of these 321 were permanently-settled holdings in the Government estates of Calcutta and its suburbs. The total amount of land revenue redeemed was Rs. 586 and the price realized aggregated Rs. 17,157, against Rs. 507 and Rs. 14,519, respectively, in the previous year. There was no redemption under the old Partition Act of 1876.

Remittance of land revenue and rent by money-orders.

25. As compared with the previous year there was a slight increase in the number of money-orders for the remittance of land revenue and cesses and in the amount covered by them, viz., 226,206 and Rs. 20,07,860, respectively, against 225,411 and Rs. 19,53,563 in 1916-17. The number of money-orders issued shows a considerable decrease due to the introduction of the combined form for the payment of both revenue and cesses, but the amount covered by the orders has been the largest this year since 1914-15. The system of payment of rent by money orders was in force throughout the Presidency, except in the districts of Darjeeling and the Chittagong Hill Tracts. As compared with the preceding year, there was a decrease both in the number of orders from 65,057 to 63,569, and the amount covered by them from Rs. 10,35,757 to Rs. 9,88,405. The decrease in the number of remittances was shared by all the Divisions except Rajshahi. The percentage of money-orders refused to money-orders issued fell from 19·1 to 16·7.

Coercive measures (a) Sale laws.

26. The number of defaults in the payment of revenue and of sales during the year was 13,273 and 1,019 respectively. The price realized by sale was 7·7 times the Government revenue. One hundred and eight appeals were filed before the Commissioners against sales. In 27 cases sales were annulled by the Commissioners under section 2 of Bengal Act VII of 1868, and in 22 cases, by the Board under section 26 of Act XI of 1859, as amended by the Decentralization Act, 1914.

(b) Certificate procedure.

27. The total number of certificates (exclusive of those for cesses) filed during the year fell from 56,964 to 56,734, showing a decrease of 230. The percentage of certificate cases disposed of to the total number for disposal was 75·4 against 76·9 in the previous year, the number of cases pending at the close of the year being 18,508, as against 17,627 at the end of 1916-17. In the majority of cases, payment was made on the issue of notices or on attachment of property, and actual sale was necessary in only 4,467 cases, or 7·8 per cent. of the total number of cases (56,766) disposed of during the year.

Realization of Government and other demands by imprisonment.

28. Of the 32 persons committed to civil jails in the enforcement of certificates, 17 were imprisoned for non-payment of Government demands and the remainder for withholding sums due to District Boards and Court of Wards, etc.

Processes.

29. The total number of processes served was 953,654 against 952,195 in the preceding year. The process fees realized amounted to Rs. 3,84,477 against Rs. 3,77,234 in the preceding year, and the total cost of service, including the pay of the supervising establishment debitable to land revenue, was Rs. 2,22,772, against Rs. 2,21,205 in the previous year. In the districts of Jessore and Bogra the cost of process-serving establishment exceeded the receipts from fees. The system of fines and rewards for bad and good work is reported to have worked well generally. The system of serving processes by dafadars through President Panchayats was in force in the districts of Hooghly, Birbhum, Khulna, Dacca, Tippera and Jessore and in parts of the districts of Burdwan, the 24-Parganas, Nadia, Murshidabad, Faridpur and

Rangpur. It has been introduced in the Sadar subdivision of Nadia with effect from the 1st April 1918. It has worked well on the whole in all places except in the district of Burdwan.

OTHER REVENUE WORK.

Land Registration.

30. The total number of proprietary interests entered in the land registration registers of the Presidency was 957,495 at the beginning of the year, as against 966,637 at its close. The number of applications for registration of succession to proprietary interests in land by purchase, inheritance, gift or otherwise was 36,974, of which 34,886 were granted before the year closed the number of old interests removed and new interests entered being 34,493, and 43,635, respectively. The number of undisposed cases at the close of the year was 9,729, of which 107 cases are reported to be pending for more than six months. The majority of these long pending cases have since been disposed of.

Partitions.

31. Forty-seven cases were instituted during the year for partition of estates under the Bengal Act V of 1897. Including the 278 cases pending from the preceding year the total number for disposal was 325, out of which 40 cases were disposed of, against 50 in the previous year. Of the 285 cases left undisposed of at the close of the year, 170 are pending for more than two years. Special officers were employed during the year exclusively on partition work in Mymensingh, Faridpur, Rajshahi and Dinajpur. Estates Partition Funds exist only in the districts of Jessore, Dacca and Mymensingh. The incidence of cost per acre of the area partitioned during the year in the districts of Dacca and Mymensingh was 7 annas 3 pies in the former and 8 annas 9 pies in the latter. No partition was completed in Jessore during the year.

Land Acquisition.

32. During the year proceedings for the acquisition, on behalf of Government, local bodies and companies, of land covering an area of 2,670 acres were confirmed, at a total cost of Rs. 23,15,521, as against an area of 5,639 acres at a cost of Rs. 71,17,478 in the preceding year. Of the total expenditure incurred a sum of Rs. 15,13,035 was for the acquisition of lands required for Government, including State Railways, and Companies' Railways provided with land free of cost, and Rs. 8,02,486 for all other purposes, viz., for District Boards, Municipalities, Calcutta Improvement Trust, Calcutta Port Commissioners and Railway and other companies. The average cost per acre of the lands for which acquisition proceedings were confirmed during the year was Rs. 867 against Rs. 1,262 in the preceding year. The decrease in the average cost is chiefly due to the fact that proceedings for the acquisition of less valuable lands in the town of Calcutta and its suburbs in the district of the 24-Parganas as well as in the Chittagong Division were confirmed during the year.

Loans—(a) Land Improvement Loans Act.

33. The amount of loans under the Land Improvement Loans Act outstanding at the beginning of the year was Rs. 2,52,657 and loans amounting to Rs. 19,700 were advanced during the year under report. Out of the sum advanced during the year, Rs. 17,000 were advanced to the tenants of the colonization area in the district of Bakarganj. Of Rs. 2,72 357 the total outstanding principal, Rs. 88,711 was repayable during the year. Out of this Rs. 79,445 was realized, including Rs. 394 collected in advance, while Rs. 783 was remitted. The balance outstanding at the close of the year was Rs. 1,92,129 of which Rs. 8,877 was overdue. Of Rs. 14,937 due on account of interest, current and arrear the collections during the year amounted to Rs. 13,993.

(b) Agriculturists' Loans Act.

34. The amount advanced during the year under the Agriculturists' Loans Act was Rs. 1,00,628. The largest sums were issued in the districts of Noakhali (Rs. 48,669), Burdwan (Rs. 18,480) and Bakarganj (Rs. 18,351). In Noakhali the whole amount was advanced in the area in the Feni subdivision affected by flood during the previous year. In Burdwan and Bakarganj also there was distress on account of floods. The outstanding balance of the previous year was Rs. 15,29,310 making the aggregate amount outstanding Rs. 16,29,938 of which Rs. 11,42,337 was recoverable within the year. The total collections amounted to Rs. 9,14,702 including Rs. 7,36

paid in advance and excess and Rs. 918 was remitted. The balance recoverable in future years is Rs. 7,14,320 (including Rs. 39,090 under suspension), of which Rs. 1,94,995 was overdue at the end of the year. The amounts overdue in the districts of Tippera, Burdwan, Noakhali and Mymensingh are heavy. Of Rs. 1,41,982 due on account of interest, current and arrear, Rs. 1,12,775 was collected.

Surveys.

[Report of the Survey Department, Bengal, for the year ending the 30th September 1917.]

Outturn of the year.

35. No new district was taken up for survey during the year. Nine hundred and three square miles were traversed, of which 717 square miles were in the district of Tippera. This completed the survey of the district. The remaining 186 square miles completed the survey of the Ganges diara, including the chars and low lands in the districts of Murshidabad and Malda. Lost stations in parts of Bankura and Jessore districts traversed in 1914-15 were refixed in an area of 493 square miles. Considerable progress was made in comparative mapping of diara areas and plotting for jurisdiction maps, and in miscellaneous work connected with the survey and mapping of the Howrah, Cossipore-Chitpore and South Suburban Municipalities and of scattered areas in various parts of the Presidency.

As a result of deputation at the India Office and the British Museum in 1916, for the study of old maps required in connection with the diara resumption proceedings carried out in Dacca, Midnapore and Mymensingh, Major Hirst compiled a fuller and revised edition of a memoir of James Rennell's Surveys of Bengal, made between the years 1764 and 1777, in which the technical value of Rennell's maps is examined. The memoir is illustrated by a new atlas containing important unpublished maps by the first Surveyor-General of India.

Land Records and Settlements.

[Annual Report of the Director of Land Records for the year ending the 30th September 1917.]

General.

36. Cadastral survey and the preparation of a record-of-rights under the supervision of the Director of Land Records were in progress in 18 districts. Altogether 1,239 square miles were cadastrally surveyed. The settled area of the province in which the Bengal Tenancy Act is in force, is 63,893 square miles. The total area, of which a record-of-rights has been completed, amounts to 24,404 square miles.

Major Settlements.

37. Major operations were in progress in 6 districts, viz., Dacca, Mymensingh, Midnapore, Rajshahi, Tippera and Noakhali.

Dacca.

38. The Settlement operations in the Dacca district were practically completed, but could not be closed on account of an abnormal accession of case work.

Mymensingh.

39. In Mymensingh, the operations were practically completed except case work under sections 105 and 106 in which very fair progress was made. Over 63,000 cases for settlement of fair rents were decided, the landlords obtaining the substantial increase of 35 per cent. on their existing rental mostly on the ground of assessment of excess areas. The revision of land revenue in 76 estates with an area of 36 square miles was effected, resulting in an increase of 76 per cent. mostly due to increase of area.

Midnapore.

40. In Midnapore, 267 square miles of attestation of records and 276 square miles of objections were finished. The year's result of applications for settlement of fair rents in zamindari areas, was an increase of 20·8 per cent. in the rent of cultivating tenants. Good progress was made in diara resumption.

Rajshahi.

41. In the course of the attestation of the diara area in Rajshahi there came up for decision the contentious question of the status of *Utbandi* tenants. The subject was discussed by the Director of Land Records at a meeting with the leading landlords of the districts concerned and rules were framed to

ensure that tenants designated as *Utbandi* tenants should only be restricted in their acquisition of occupancy rights in cases in which the conditions of restriction prescribed by the law prevail.

Tippera and Noakhali.

42. In Tippera and Noakhali, 745 square miles of cadastral survey, Khanapuri and preliminary office work and 758 square miles of Bujharat were completed.

Minor operations.

43. Minor operations on the application of parties were scattered over 12 districts. The revisional settlement of the Fatehsing estate belonging to the Nawab Bahadur of Murshidabad was completed. The landlords' copy of the revised record will henceforth be maintained at the Nawab Bahadur's expense by Government agency on terms and conditions already approved with a view to the application of the certificate procedure for the realisation of rents. This is the first experiment in the Presidency of the proceedings provided for in section 158A of the Bengal Tenancy Act.

Boundary marks.

44. Out of a total of 33,208 marks, 20,109, *i.e.*, about 60 per cent., were inspected. In Government and temporarily-settled estates 227 damaged or missing marks were repaired or restored at a cost of Rs. 355.

Waste Lands.

[Report on the Land Revenue Administration of Bengal for the year 1917-18.]

Waste Lands.

45. The rules for the grant of waste land leases to large capitalists in the 24-Parganas and Khulna portions of the Sundarbans continued to be under suspension. Raiyatwari settlement on the lines of the Bakarganj Colonization scheme is being made in certain of the Sundarbans lots in the 24-Parganas by a special officer.

The number of leases granted under the Large Capitalists' Rules of 1879 and under the rules of 1853 was the same as before, viz., 180 and 93, respectively, in the 24-Parganas, and 22 and 38, respectively, in Khulna. The revenue payable in respect of these during the year was Rs. 1,23,080 and Rs. 80,163, respectively, on the former, and Rs. 12,514 and Rs. 54,076, respectively, on the latter. The number of leases granted in Saugor Island was 6 as before, and the revenue payable during the year was Rs. 5,029. No leases of waste lands were granted in the district of Chittagong during the year. In Noakhali initial raiyatwari settlements were made of certain char lands. In Jalpaiguri 3 leases were granted under the Arable Waste Land Lease Rules.

Government Estates.

[Report on the Land Revenue Administration of Bengal for the year 1917-18.]

Number and management.

46. There were altogether 2,359 estates under direct management, including those of private individuals managed by Government with an annual demand of Rs. 43,55,696 (excluding that of the Orphangunge Market, Hastings Estate, and Madhab Babu's Bazar in the 24-Parganas). The percentage of cost of management on the current demand was 7·53. A manager was appointed during the year for the canal surplus and khas khamar lands in the Panchannogram Government estate in the 24-Parganas under the new rules sanctioned by Government. The reorganisation of the khas mahal establishment of the district of Noakhali was sanctioned during the year.

Grant for improvements.

47. Of the total expenditure, viz., Rs. 1,34,295, incurred on account of works of improvement, a sum of Rs. 18,723 was spent on tanks and wells, Rs. 66,575 on drainage, irrigation and embankments, Rs. 4,370 on roads and bridges and the balance (Rs. 44,627) on miscellaneous works including planting of trees.

Colonization in the Bakarganj Sundarbans.

48. The year under report was the eleventh year in the history of the Colonization scheme in the Bakarganj portion of the Sundarbans. During the year 476 new colonists were settled on 23,141 bighas of land, against 638 colonists and 24,805 bighas in 1916-17. The expenditure incurred during

the year on the scheme amounted to Rs. 50,342. The total amount advanced during the year to the colonists, as land improvement loans, was Rs. 17,000 and a sum of Rs. 5,728 was realised from them. The progress of reclamation was satisfactory. Twenty-three rural co-operative credit societies were in existence in the colonization area at the beginning of the year and fifteen new societies were registered.

Roads.

49. The total amount spent on roads and communications in Government estates aggregated Rs. 3,07,620, while the Government grant of one-and-half per cent. on collections from these estates amounted to Rs. 74,779, the excess expenditure being met from District Boards and other funds.

Education.

50. The total number of schools in Government estates and of pupils attending them increased from 2,241 and 75,998 in 1916-17 to 2,361 and 76,648, respectively, during the year under report. The increase both in the number of schools and of pupils was chiefly contributed by the districts of the Dacca, Chittagong and Rajshahi Divisions. A sum of Rs 81,219 was spent on education in Government estates, against the Government grant of Rs. 50,993, being one per cent. on collections from these estates. The excess expenditure was met from local grants.

Sale of estates.

51. Only one estate was sold in the district of Burdwan during the year under report for Rs. 240, subject to an annual revenue of Rs. 116. In addition two plots of land in the 24-Parganas were sold to the Calcutta Improvement Trust at the full market value of Rs. 48,247.

Wards' and Attached Estates.

[Report on the Administration of Wards' and Attached Estates for the year 1917-18.] (1324 B.S.)

Number of estates and payment of Government demand.

52. The total number of estates under the management of the Court of Wards, at the beginning of the year was 55, excluding some petty properties lying in the district of Mymensingh belonging to the Pallakandi Estate in Sylhet, and including three small estates owned by the members of the Nawab family of Dacca. During the year, eight new estates were taken charge of and one estate was released. Thus the number of estates under the charge of the Court of Wards at the close of the year was 62.

The total amount of revenue and cesses due to Government including an arrear demand of Rs. 1,03,663, was Rs. 14,02,282, of which 92·9 per cent. was paid against 93·0 per cent. in the previous year.

Rent and cesses due to superior landlords.

53. The percentage of payment of rent and cesses due to superior landlords, showed a slight improvement, being 84·8 per cent. of the amount due, against 83·2 per cent. in the previous year, leaving a balance of Rs. 86,586 out of a total demand of Rs. 5,73,516. The heaviest balances were due from the Bhawal Estate in the district of Dacca, the Karatiya Estate in Mymensingh, and the Dasmina Estate in the district of Bakarganj. The balances are mainly due to disputes, non-adjustment of accounts and accumulation of petty dues allowed by superior landlords.

Collection of rent and cesses.

54. The demand for rent and cesses due to the estates under management, during the year under review, was Rs. 1,02,81,799 including an arrear demand of Rs. 60,98,841. Out of this Rs. 41,17,608 or 40·0 per cent. was collected against 44·0 per cent in the previous year. The percentage of collection on current demand fell from 110·7 in the preceding year, to 98·4. The standard of 100 per cent. collection on current demand was exceeded in 20 estates. The falling off in the percentage of collection in the remaining estates was mainly due to the straitened circumstances of the tenantry in general, in consequence of the high prices of most of the necessaries of life, and the abnormally low prices of jute and paddy, owing to the European war.

Balances of rent and cesses due to estates.

55. The outstanding balances of rent and cesses due to all estates aggregated to Rs. 59,22,407 representing 141·5 per cent. on the current demand and 57·6 per cent. on the total demand, against 138·3 per cent. and 55·2 per cent., respectively, in the previous year. The balances exceeded the current demand in all but the Rajshahi Division. As regards the estates in which the balances exceeded 25 per cent. of the current demand, the

percentage of total balances on the current demand was 123·6 in the Burdwan, 100·8 in the Presidency, 205·4 in the Dacca, 101·1 in the Chittagong and 79·2 in the Rajshahi Divisions. These figures show an increase in the Burdwan, Dacca, and Rajshahi Divisions and a decrease in the Presidency and Chittagong Divisions. A large portion of the balances in the Pachetgarh Estate is irrecoverable, and will have to be written off. In the Nayabasan Estate, the heavy outstanding balances are due to the same reasons as last year, namely, during the Survey and Settlement operations the tenants totally stopped payment of rent for about 3 years and the partial failure of crops during the last few years. The outstanding balances of the Basudebpur Estate are attributed to the fact that the finances of the estate were in a very unsatisfactory state when the Court of Wards took charge of it. The balances of the Janbazar Estate No. I decreased from 161·6 per cent. in the preceding year to 116·9 per cent. in the year under review, owing to the remission of a large amount of irrecoverable rent and cesses. The high percentage of balances in the 24-Parganas portion of the Tagore Estate is due to the fact that the balances include a considerable amount of irrecoverable demands, in respect of which no remission could be allowed in view of the approaching release of the estate, consequent on the suit brought by the mortgagees having been decreed. The large balances in the districts of Dacca and Mymensingh are expected to be reduced during the current year by remission of a considerable portion of the irrecoverable demands. Of the balances due from the Bakarganj portion of the Tagore Estate, considerable portion has become barred by limitation. Remission has not been allowed for the same reasons as stated in the case of the 24-Parganas portion of the estate. The balances outstanding in respect of the Kasimbazar (Sarail) Estate in Tippera could not be reduced, as the tenants had not recovered from the stress of the past bad years.

Debts of Estates.

56. With a few exceptions, all the estates in the Presidency are more or less heavily encumbered. The total debts of all the estates stood at Rs. 81,71,983 at the end of the year. The debt of the Pachetgarh Estate was reduced from Rs. 50,080 to Rs. 38,745. The debt payable by the Basudebpur Estate stood at Rs. 1,58,417, against Rs. 3,70,150 at the close of the previous year. The debt of the Jhargram Estate was reduced from Rs. 4,52,173 to Rs. 4,03,123 by a payment of Rs. 72,585 including interest. Out of a total debt of Rs. 22,71,670 in the Presidency Division, the Tagore Estate alone was responsible for Rs. 21,09,394. The decree obtained by the mortgagees of this estate in the foreclosure suit became absolute but the proclamation for the sale of the properties has not yet been published. On behalf of the Mukharji Estate, a fresh loan of Rs. 1,00,000 at 6 per cent. interest per annum was taken and the old debts were cleared off. The debts due by the estate were thereby reduced from Rs. 1.17,000 to Rs. 1,00,000 only. Out of a debt of Rs. 34,553 due by the Janbazar Estate No. I, Rs. 20,000 represents the legacies payable under the last will of the late proprietor of the estate and the balance of Rs. 14,553 represents a part of the amount decreed last year against the estate in the Dakshineshwar debottar suit. The outstanding debt of the Bhawal Estate was Rs. 18,10,186, of which the undisputed amount was only Rs. 1,86,356. The Nurullapur property of the late Nawab Sir Salimullah was sold and the entire sale-proceeds of Rs. 1,85,815 along with some petty assets amounting to Rs. 385 were expended in part payment of his debt to the Government of India. A sum of Rs. 23,714 was paid towards reduction of the principal and interest of the debts due by Khwaja Attikullah and a remission of Rs. 356 was obtained, thus leaving a balance of Rs. 8,35,333. Out of this outstanding balance Rs. 60,470 has since been paid off. The debts of the Karatiya and Sherpur Estates were reduced slightly, but the debt of the Golakpur Estate increased to a certain extent by the accrual of interest. The debts of the Debnath Dutta and the Dasmina Estates in Bakarganj were reduced slightly.

The debt of the estate of Salamatali Khan was reduced from Rs. 17,033 to Rs. 14,027 and that of the estate of Surendra Bijay Ray from Rs. 18,355 to Rs. 16,139. The debt of the Bhukailash Estate in Tippera could be reduced but slightly, after the payment of Rs. 13,250 towards interest. The debts of the Kazi Estate in Tippera and the Kalitara Estate in Noakhali were reduced

by Rs. 12,870 and Rs. 1,000 respectively. The debt of the Karmi Estate was reduced from Rs. 33,602 to Rs. 31,154.

Management charges.

57. The percentage of cost of management on the current rent and cess demand of estates for the whole Presidency was 13·2 against 13·0 in the previous year. The standard of 10 per cent. was exceeded in all the divisions except the Presidency. The percentage of cost of the Basudebpur Estate in Midnapore rose from 3·6 to 14·1. The increase of percentage from 17·1 to 19·4 in the Bhawal Estate has been explained to be due to the expenditure in connection with the reorganisation of the forests of the estate and the increased charges for travelling allowance of the *tehsil* staff to attend the Settlement camps. The increase in the management charges of the Golakpur and the Sherpur Estates in Mymensingh was due to the purchase of a pony for the use of the General Manager. The high percentage (26·0) of the management cost in the Karatiya Estate is attributed to the fact that a very large amount was paid to the *patwaris* of the estate on account of their arrear commissions on adjustment of their accounts.

Improvements.

58. The standards fixed for expenditure on schools and on agricultural and sanitary improvements are one and three per cent., respectively, of the current rent and cess demand of an estate. There is no standard fixed for expenditure on other works of improvement. The total expenditure for the Presidency under all these heads during the year was Rs. 1,70,496. In accordance with the instructions issued by the Board in 1916, agricultural demonstrations in wards' estates are now carried on mostly under the supervision of the officers of the Agricultural Department.

Lady Adviser.

59. Miss Cornelia Sorabji, the Lady Adviser to the Court of Wards, did much useful work in giving the ladies of the zenanas of wards' estates the benefit of her advice in various matters, particularly with regard to the health, comfort and education of these ladies and of minor wards.

Education of the Wards.

60. The education of the wards received due attention and the result was generally satisfactory. A minor son of the eldest male ward of the Bhukailash Estate No. I received some training in survey and settlement work under the Settlement Officer of Tippera and Noakhali during the year.

Revenue and rent-paying classes.

[Report on the Land Revenue Administration of Bengal for the year 1917-18.]

Bengal Tenancy Act.

61. The Bengal Tenancy Act is in force throughout the Presidency except the district of Darjeeling, the Chittagong Hill Tracts and the town of Calcutta.

Relations between landlords and tenants.

62. The relations between landlords and tenants were not entirely satisfactory throughout the Presidency. Ill-feeling caused by enhancement of rent, illegal exactions or money-lending was noticeable in several districts. Disputes between co-sharer landlords often led to the oppression of the tenants.

Rent receipts.

63. Out of 69 cases in which proceedings were taken for failure to grant rent receipts as provided in the Bengal Tenancy Act, 35 ended in the imposition of fines, 26 were dismissed or struck off, 1 was compromised and 7 were pending at the close of the year. In eight of the cases ending in conviction the orders were set aside on appeal.

Illegal cesses.

64. The practice of levying *abwabs* or illegal cesses in addition to rent continued to prevail throughout the Presidency. As a rule, the tenants pay these illegal demands without much demur in order to maintain amicable relations with their landlords. No regular suits were filed under section 75 of the Bengal Tenancy Act to resist these demands and it is clear that the law, as it exists, is inoperative. The extension of records of rights in the Presidency has, however, had a beneficial effect in restricting the levy of *abwabs:* this is due to the fact that settlement operations afford the opportunity for educating the cultivators to a recognition of their rights.

CHAPTER III.—PROTECTION.

Legislative Authorities.

See—

General Administration Report for 1912-13, Part II, Pages 13, 14.

Course of Legislation.

Acts passed during 1917-18.

65. Five Acts were passed by the Bengal Legislative Council during the year 1917-18, of which the first four (viz., Bengal Act No. I of 1917 and Nos. I to III of 1918) became law during the year, and the last (viz., Bengal Act IV of 1918) shortly after the close of the year. These Acts were—

(*1*) *Bengal Act I of 1917.*—[The Calcutta Municipal (Amendment) Act, 1917.] This law was enacted for the purpose of enabling more stringent measures to be taken for securing the purity of *ghee* than were possible before, by penalising the manufacture, storage and sale of adulterated *ghee*.

(*2*) *Bengal Act I of 1918.*—[The Bengal Public Demands Recovery (Amendment) Act, 1918.] This Act provides a more effective method of realising the contributions to the assets of a co-operative society which has gone into liquidation, together with the costs of such liquidation, by means of the certificate procedure under the Bengal Public Demands Recovery Act, 1913.

(*3*) *Bengal Act II of 1918.*—[The Bengal Tenancy (Amendment) Act, 1918.] The object of this Act is to place restrictions on the passing of certain lands in Bengal, which are held or cultivated by persons belonging to aboriginal tribes, into the hands of persons not belonging to such tribes, with a view to protect these tribes against their own ignorance and thriftlessness. It is not intended that the Act should apply to all aboriginal tribes, but only, in the first instance, to the Sonthals of the districts of Birbhum, Bankura and Midnapore ; power is however given to the Local Government to extend it by notification.

(*4*) *Bengal Act III of 1918.*—[The Bengal (Aliens) Disqualification Act, 1918.] The object of this Act is to prevent persons, not being British subjects or subjects of any State in India, from voting at elections, or sitting as members, of local bodies in Bengal, and from holding responsible offices under those bodies.

(*5*) *Bengal Act IV of 1918.*—[The Serampore College Act, 1918.] This Act makes certain modifications in the constitution of the Serampore College ; it also provides safeguards similar to those prescribed by the Indian Universities Act, 1904, subject to which the power to grant secular degrees conferred by the Charter on the Council of the College is to be exercised.

Bills pending during 1917-18.

66. The following four Bills were pending before the Bengal Legislative Council during the year 1917-18 :—

(*1*) *The Bengal Juvenile Smoking Bill, 1917.*—This is a private Bill, which was introduced in Council by the Hon'ble Dr. Abdulla-al-Mamun Suhrawardy on the 20th November, 1917, and was circulated for opinion. The object of the Bill is to discourage cigarette smoking amongst juveniles.

(*2*) *The Calcutta Municipal Bill, 1917.*—This was introduced in Council on the 20th November, 1917, and was circulated for opinion. The object of the Bill is to amend and consolidate the law relating to the municipal affairs of the town and suburbs of Calcutta. Important changes have been proposed in the constitution of the Corporation provided by the Calcutta Municipal Act, 1899 ; the opportunity has also been taken to deal with various practical difficulties which have been experienced in the working of the existing Act,

and to introduce some new provisions which are not included in the existing law.

(3) *The Bengal Primary Education Bill, 1917.*—This is another private Bill which was introduced in Council by the Hon'ble Babu Surendra Nath Ray on the 18th December, 1917, and was circulated for opinion. Its object is to provide for the extension of primary education, by making such education compulsory, in all municipalities and other selected areas in Bengal.

(4) *The Calcutta Hackney-Carriage Bill, 1918.*—This Bill was introduced in Council on the 19th February, 1918, and was circulated for opinion. The Bill has the following objects in view, namely :—

(a) to make certain additions to, and amendments in, the Calcutta Hackney-Carriage Act, 1891 (Bengal Act II of 1891), which experience has shown to be necessary for the improvement of the hackney-carriage service in Calcutta and elsewhere in Bengal; and

(b) to bring within the scope of the Act rickshaws, which are being used in increasing numbers in Calcutta.

Bengal Police.

[The Report on Police Administration in the Bengal Presidency for the year 1917. Statistics of British India, Part VI—Administrative and Judicial.]

Military Police.

67. The Military Police Battalion fully maintained its high standard of efficiency, in spite of calls in different directions to unaccustomed duties, which interfered with its regular training. Good accounts were received of the contingent serving with the Expeditionary Force in Mesopotamia where a lance-naik was awarded the Indian Order of Merit. The battalion suffered a heavy loss in the death of its Subadar-Major Sardar Bahadur Gopal Chandra Das, who had a most distinguished record of service, and the reversion of Captain Dallas-Smith to military duty at the end of the year deprived it of an able and experienced officer.

Administration.

68. The superior cadre of the service was increased during the year by the addition of a fifth post of Deputy Inspector-General to hold charge of a new Range comprising the districts of Bakarganj, Faridpur, Noakhali and Chittagong, together with the River Police.

Four more Additional Superintendents of Police were appointed during the year in Eastern Bengal, in addition to the seven posts created in previous years. Each of the important districts of Mymensingh and Dacca has now three Superintendents of Police at headquarters—an unsuitable arrangement, but one which will probably have to be maintained until the projected partition of the districts has been carried out.

The sanctioned strength of the force was increased during the year by 998 men, including five Inspectors and 99 Sub-Inspectors, but the proportion of Police to population is still low in Bengal in comparison with other provinces.

Recruitment.

69. Recruitment was on the whole satisfactory and the force was kept well up to its sanctioned strength. The difficulty of securing up-countrymen is increasing, as was to be expected in view of the large drain on the rural population of Northern India for war service. On the other hand, the number of local recruits showed a steady increase, and the number of resignations, though still high, again showed a decrease. In the recruitment of Sub-Inspectors a most satisfactory feature was the large increase in the number of graduates enrolled—more than three times that of the previous year.

The year was a bad one for health and followed an unusually good one. A rise in the mortality statistics was therefore inevitable. The figures, however, compare favourably with those for 1915. Illness was mainly malarial, and considerable improvement was effected by the supply of cots and nets for Police barracks in the interior.

Discipline.

70. There was a further increase in the number of men who were rewarded either in money or with good service marks. The amount of money

disbursed exceeded that spent last year by nearly Rs. 10,000. The proportion of men judicially punished remained stationary at 1·3 per cent. of the force. Of the 377 criminal cases brought against the police and decided during the year, only 59 ended in conviction, and of these the majority related to minor offences. No member of the force was convicted of torture, and with the exception of two Sub-Inspectors convicted of bribery, one of whom was subsequently acquitted on appeal, no officer above the rank of head-constables was found guilty of any criminal offence. Of the 18 civil suits instituted against the police, only one was decreed; an appeal was filed and is pending.

River Police.

71. The river system was extended during the year by the opening of the new Ganges Division with 5 police-stations, and in Eastern Bengal three police-stations only remain to be equipped. The value of river patrols working in close co-operation with the land branch is exemplified by the fact that in the Tippera district only two river dacoities occurred during the year, as compared with 23 in the previous year. Six vessels were received during the year from the Royal Indian Marine Dockyard, and eight steam-launches were built to replace eight vessels taken over by the Military Department. Sanction to acquisition of land at Barisal for the new river police headquarters was communicated shortly after the close of the year.

During the year the river police rescued no less than 87 persons from drowning.

Village Police.

72. The reports on the village police were, on the whole, encouraging, and in several districts there was satisfactory co-operation between the station officers and the *panchayats*. This was especially the case in areas in which the circle system had been introduced. There were heavy arrears of pay in Midnapore, Mymensingh, Bakarganj, Rangpur and Tippera, and in some of these and in other districts, there was apparent illiberality in rewarding chaukidars.

Expenditure.

73. The amount spent on the police during the year exceeded the sum spent in the previous year by Rs. 5,39,000, the increase being due mainly to additions to the force. The sum of Rs. 18 lakhs spent on buildings was nearly double that of the previous year, but small when compared with urgent requirements in the matter of decent accommodation for the police in the mufassal.

Crime.

74. There was a slight increase, amounting to less than one per cent., in the total volume of cognizable crime, but the statistics relating to the more serious forms of crime showed a considerable improvement. Murders, dacoities, poisoning cases and thefts of arms were all less frequent than in 1916. There were 437 cases of dacoity compared with 544 in 1916 and 653 in 1915; the figures for 1917 were swelled by the inclusion of the *hât*-looting cases which took place at the end of the year, but were not the work of ordinary dacoits. The police are to be congratulated on the manner in which they coped with the outbreak of dacoity which occurred shortly after the beginning of the war and reached its height in 1915, and it is noteworthy that the force has kept pace with the increased activity of the criminal classes due to the war. The most serious feature of the statistics for 1917 was the large increase in burglaries. This was, no doubt, due in part to better reporting facilitated by the opening of new investigating centres, but it would seem that the open lawlessness which found its vent in dacoities after the outbreak of the war has now been succeeded by greater activity on the part of individual criminals. The economic stress and general unrest caused by the war still continue, and, so long as they prevail, the restoration of normal conditions cannot be expected.

Crimina Investigation Department. Detective School.

75. The Criminal Investigation Department took energetic action during the year in Western Bengal to rid the mufassal districts of gangs of habitual dacoits and thieves. By taking action under sections 400 and 401 of the Penal Code against such gangs, the Department succeeded in clearing some areas altogether of crime and in effecting a remarkable reduction in others.

The Criminal Investigation Department and the force as a whole, should, in future years, be greatly benefited by the accession of officers

trained in the newly opened detective school at Howrah. The curriculum provides instruction in various branches of scientific police work. The establishment of the school is an important step towards educating the police in India up to the standard of European countries. The organization of a special detective staff for the 24-Parganas proved of great assistance to the district police, and did much to improve the control over professional and organized crime in the area around Calcutta.

Criminal Tribes.

76. The section of the Criminal Investigation Department which deals with the administration of the Criminal Tribes Act was strengthened, and ten more gangs were brought under the Act during the year. The need for surveillance after registration was met by the appointment of three Inspectors and thirteen Sub-Inspectors for the work.

Revolutionary Crime.

77. There was a most satisfactory decrease in revolutionary outrages during the year, only nine cases having occurred as compared with 24 in 1916 and 36 in 1915. All the cases in 1917 were dacoities; three were attended with murder, resulting in the death of six persons. For the first time since 1907, no police officers met their death at the hands of the revolutionary party, though an officer had a narrow escape while arresting a dangerous criminal who was armed with a revolver. That the improvement in the situation is directly due to the preventive measures taken under the Defence of India Act and under Regulation III of 1818 admits of no doubt, but success would not have been achieved but for the skill and judgment displayed by the officers of the Intelligence Branch and their courage and devotion to duty in their difficult and dangerous tasks.

Mortality caused by wild animals and snakes.

[Report on the above and measures taken for their destruction during 1917. Statistics of British India, Part V—Area, Population and Public Health.]

Wild animals.

78. The number of persons killed by wild animals decreased from 367 in 1916 to 341 in 1917. There was an appreciable increase in the number of deaths by tigers, the total figure being 81 in 1917 against 55 in 1916. The number of deaths caused by elephants, leopards and hyenas decreased from 29, 72 and 14 in 1916 to 15, 58 and 7, respectively, in 1917.

Snakes.

79. The number of persons who died from snake-bite rose from 4,114 in 1916 to 4,393 in 1917, the increase being mainly in the Burdwan and the Presidency Divisions.

Destruction of wild animals.

80. The number of wild animals for the destruction of which rewards were paid decreased from 798 in 1916 to 412 in 1917. The Dacca Division is responsible for this substantial decrease where the number fell from 462 in 1916 to 100 in 1917. The number of tigers destroyed increased from 110 in 1916 to 123 in 1917. The amounts paid for the destruction of wild animals and snakes were Rs. 15,464 and Rs. 206, respectively, the corresponding figures for 1916 being Rs. 7,229 and Rs. 170.

Police Administration in Calcutta.

[The Annual Report on the Police Administration of the town of Calcutta and its suburbs for the year 1917. Statistics of British India, Part VI—Administrative and Judicial.]

Administrative improvement.

81. There were no important changes in the organisation of the force during the year, beyond an addition to the Detective Department made mainly in order to enable it to cope with commercial frauds and other specialised forms of crime, involving lengthy investigations with which the station staff are unable to deal without detriment to their ordinary duties. Additional launches were under construction in connection with a scheme for the improvement of the River Patrol system designed to check smuggling and the illicit importation of arms.

Recruitment.

82. The difficulties in connection with the recruitment of the rank and file increased, and the number of vacancies at the close of the year was 568, or more than 10 per cent. of the total sanctioned strength. Endeavours

to obtain Bengali recruits for the Calcutta Constabulary failed, and Bihar and the United Provinces remain the chief sources of supply. The heavy drain on these areas during the last two years for men for the army and for labour corps, as was to be expected, seriously interfered with Police recruitment. The sanction of the Secretary of State was obtained to a general increase of Rs. 2 a month in the pay of the constables in the Calcutta Police, and this, it is hoped, will prevent any further depletion of the force.

Crime. 83. Crime in the aggregate, including petty cases under all Acts, steadily increased, and the total number of true cognizable cases was 106,540 or 6,127 more than in the previous year. Serious offences against person and property were, however, fewer, and the main increase was in miscellaneous offences under the Calcutta and Suburban Police Acts and under the Cruelty to Animals Act, which together accounted for 84 per cent. of the total number of cases. Excise cases showed a further marked fall.

Juvenile offenders. 84. The number of juveniles convicted rose to 1,259 or 455 more than in the previous year. Of these 1,171 were tried in the House of Detention instead of in the ordinary Courts. Only 19 were sentenced to imprisonment in the Juvenile Jail, while 24 were sent to reformatories. It is satisfactory to find that the Courts tend to deal with youthful offenders more and more by warning and discharging them, or by binding them over as first offenders, and less by means of whipping or fining.

Two probation officers were appointed to watch over youthful offenders after their release from the House of Detention. These officers supervised the conduct of 53 boys during the year and made enquiries regarding many more.

Political Crime. 85. Except for a robbery in January and a dacoity with murder in May, the city was free from revolutionary crime, and for the first time since 1912 no police officer was assassinated in Calcutta. There can be no doubt that this result is due largely to the preventive measures taken under the Defence of India Act and Regulation III of 1918.

Motor Vehicles. 86. The number of motor vehicles of all sorts running in Calcutta continue to increase, and their proper control is a matter of no small difficulty. No less than 1,032 persons were injured in street accidents during the year; the number of deaths was 54 as compared with 75 in 1916. Steps were taken to check the use of excessively powerful and dazzling lights in the streets and to abate the nuisance caused by the noisy mechanical horns and sirens.

Cinematograph. 87. An informal censorship of cinematograph films was introduced during the year and worked satisfactorily. A board of censors was established for each separate management showing cinematograph films in Calcutta, and their supervision and advice were cordially accepted by bioscope proprietors.

Fire Brigade. 88. The Calcutta Fire Brigade rendered excellent service during the year. It was called out on 377 occasions, but the average loss per call was only Rs. 1,838 as compared with an average of Rs. 2,733 for the last five years.

Criminal Justice.

[Report on the Administration of Criminal Justice in the Presidency of Bengal during the year 1917. Statistics of British India, Part VI—Administrative and Judicial.]

Judicial staff. 89. For sessions work, the staff consisted of 21 Sessions Judges and 10 Additional Sessions Judges employed throughout the year. Four Subordinate Judges were vested with the powers of Assistant Sessions Judge. They were employed in Mymensingh, Faridpur, Bogra, Midnapur and Hooghly, where they decided altogether 67 cases. One covenanted officer, who was under judicial training at Nadia, disposed of one sessions case as Assistant Sessions Judge. Besides the above, six temporary Additional Sessions Judges were employed, namely, at Howrah from the 1st February till the end of the year, at Dacca for six months from the 1st March, at Bankura for one month and a half from the 11th June, and at Alipur (24-Parganas), Pabna and Dinajpur, from the 2nd April, the 9th July and the 17th September.

respectively, till the 13th October. The magisterial staff employed at the close of the year, including that of the Presidency town, consisted of 392 stipendiary and 842 honorary magistrates. These figures represent an increase of 43 and 63, respectively, on the numbers of the previous year. One special magistrate was employed in Noakhali where he decided 183 cases. Of the 392 stipendiary magistrates, 263 exercised first, 99 second and 30 third class powers.

There were 133 benches of magistrates constituted from among 744 honorary magistrates in the mufassal. Of the total, 111 were independent and 22 were restricted to the trial of cases under the Municipal Act.

Offences reported.

90. There were 354,020 criminal offences reported during the year, an increase of 23,940 on the figures of 1916. Of the total, 189,977 were under the Indian Penal Code and 173,043 under special and local laws. These totals exceed those of 1916 by 9,446 and 14,503, respectively. The increase was most marked in Dinajpur, Dacca, Tippera, Rangpur and the 24-Parganas as regards offences under the Penal Code, and in the Presidency town, the 24-Parganas and Howrah as regards offences under special and local laws.

False Cases.

91. The number of cases found to be false, or in which complaints were dismissed, was 58,865, or 16·6 per cent. of the number reported during the year. These figures include cases pending enquiry at the close of 1916. The percentage for the preceding year was 16·9. Complaints were dismissed in 53,100 cases, or 2,411 more than in 1916. The number of cases declared to be false after trial or inquiry was 5,765, or 436 more than in 1916.

True Cases.

92. Of the total number of cases under inquiry 294,716 were found to be true, and of these 245,674 were brought to trial. Inquiries were pending at the close of the year in 15,504 cases. Compared with 1916, the number of cases found to be true and the number brought to trial show an increase of 21,698 and 19,348, respectively.

ORIGINAL JURISDICTION.

I.—Presidency Magistrates' Courts.

Total cases for trial.

93. Of the total number of cases brought to trial, 100,354 were in the courts of the police and municipal magistrates in the Presidency town, and 145,320 in the courts of magistrates in the mufassal.

A.—Presidency magistrates, Calcutta. Cases for trial.

94. The number of cases brought before the Presidency magistrates, including the municipal magistrates, was greater by 10,596 than in 1916. The number of cases under special and local laws was 92,655, or 9,442 more than in 1916, while cases under the Penal Code rose from 6,545 to 7,699. The increase under the former head was most marked in offences under the Police Act which rose from 51,759 to 58,632. The number of offences under the Bengal Motor Car and Cycle Act rose from 1,059 to 3,123, under the Act for the Prevention of Cruelty to Animals from 5,629 to 7,089, and under the Ferry Service Act from 2 to 260. Under the Penal Code, there was an increase in offences affecting the public health, safety, etc., which rose from 2,316 to 3,744.

Before the Presidency magistrates, other than the municipal magistrates, 83,143 cases were disposed of during the year, of which 33,709 were before stipendiary magistrates, 47,162 before honorary magistrates sitting singly and 2,272 before benches. In 1916, 71,617 cases were decided, of which 34,813 were before stipendiary magistrates, 35,959 before honorary magistrates sitting singly and 845 before benches. Three hundred and thirteen cases were pending at the close of the year. Of the total number disposed of, 41 were committed to the High Court, and the remainder were finally decided by magistrates, 886 under ordinary and the remainder under summary procedure. The number of witnesses examined before the police magistrates was 19,839, as compared with 19,765 in 1916. The number of those who attended and were discharged without examination was 592, or 2·8 per cent. of the whole number in attendance. Of the total number in attendance, 16,075 (78·7 per cent.) were discharged on the first day; 3,914 (19·1 per cent.) on the second; 388 (1·9 per cent.) on the third; and 54 (·3 per cent.) after the

third day. The number of witnesses detained for more than three days was 15 less than in 1916.

The number of cases brought before the municipal magistrates was 17,138, all of which were cases under the Calcutta Municipal Act. The number of cases disposed of was 17,133, of which 16,845 were decided under the summary procedure. In the remaining five cases, the accused died. Compared with 1916, the number of cases instituted and disposed of shows a decrease of 951 and 956, respectively. The number of witnesses examined before the municipal magistrates rose from 3,837 to 4,803. Of the witnesses in attendance, none were detained for more than three days.

Results of trials.

95. The aggregate number of persons under trial before the Presidency magistrates, other than the municipal magistrates, was 89,159. Of the persons tried, 9,084 were acquitted or discharged, 79,553 were convicted, 29 died, 47 were committed to the sessions, and 446 remained under trial at the close of the year. Of the persons acquitted or discharged, the cases of 6,094 were compounded, withdrawn, or dismissed for default. Of the persons tried for offences under the Penal Code, 5,412 were convicted and 3,518 acquitted or discharged. The results of trials before each class of magistrates during the year are shown below :—

	Acquitted or discharged.	Convicted.	Percentage of convictions.
Stipendiary magistrates ...	3,269	31,959	90·7
Benches of magistrates	692	1,636	70·2
Honorary magistrates sitting singly	5,123	45,958	89·9

Of the persons convicted, 2,223 were punished with rigorous imprisonment, the sentence in the case of 13 persons including terms of solitary confinement; 428 were punished with simple imprisonment, 70,180 with fine and 218 with whipping. One hundred and nine of the persons sentenced to fine were so sentenced in addition to other punishments.

Twenty-one sentences of imprisonment were, in the case of youthful offenders, commuted to detention in a reformatory school. Six thousand and ninety-six convicted persons were warned and discharged.

In addition to these sentences, 315 persons were required to furnish security for good behaviour, all of whom were imprisoned in default for terms not exceeding one year : 11 persons convicted of offences involving a breach of the peace were ordered to execute bonds to keep the peace; 108 persons were released on probation under section 562, Criminal Procedure Code; and various miscellaneous orders were passed under special laws in the cases of 88 persons. The number of persons released on probation of good conduct shows a decrease of 9 as compared with 1916.

Before the municipal magistrates, 20,237 persons were under trial, of whom 19,479 were convicted, 753 were acquitted or discharged and 5 died. The percentage of convictions was 96·2. Of the persons convicted, 13,277 were punished with fines, and the remainder were ordered to comply with the various requirements of the rules and bye-laws of the Calcutta Corporation.

B.—Magistrates outside Calcutta. Cases for trial.

96. At the opening of the year, 5,533 cases, besides cases of lunatics, were pending before magistrates outside Calcutta. During the year, 145,362 cases, including references under sections 347 and 349, Criminal Procedure Code, were brought to trial, 144,947 were disposed of and 5,899 remained pending at its close. The cases brought to trial were more than in 1916 by 8,704, the increase being chiefly in cases under special and local laws (5,736). Under the Indian Penal Code the increase in offences affecting the human body (1,209), against property (807) and in offences by or relating to public servants (579) was very prominent.

An increase in the number of cases instituted is reported from 21, and a decrease from 5, districts. The increase was most marked in the 24-Parganas (2,422), Howrah (1,069), Bakarganj (833), Mymensingh (832), Dinajpur (744) and Midnapur (703), while the largest decrease occurred in Hooghly (492).

The increase in the 24-Parganas was most prominent in cases under special and local laws and in offences under the Act for the Prevention of Cruelty to Animals.

The disposals were distributed as follows :—

	Tried regularly.	Tried summarily.
District magistrates	302	49
Subordinate stipendiary magistrates ...	77,511	31,979
Honorary magistrates	21,621	831
Benches of magistrates	3,183	9,247
Special magistrates	183	...

In addition to the cases shown above, District and Subdivisional magistrates decided 41 cases referred to them under sections 347 and 349 of the Code of Criminal Procedure.

The number of cases decided during the year was more than in 1916 by 8,904. The increase occurred in the courts of honorary magistrates, subordinate stipendiary magistrates and special magistrates who disposed of 6,021, 3,184 and 79 cases, respectively, more than in the preceding year. The number of cases disposed of by benches of magistrates and district magistrates shows a decrease of 271 and 112, respectively, as compared with 1916.

The total number of cases disposed of by district magistrates was 392, the largest number having been decided by the Deputy Commissioner of Jalpaiguri (176).

Results of trials.

97. Of the total number of cases shown in the preceding paragraph, 1,366 were committed or referred to the session and 143,581 were finally disposed of by magistrates. In these latter, 201,338 persons were accused, or 12,133 more than in 1916. Of the total, 107,968, or 53·6 per cent., were convicted, and 93,370, or 46·4 per cent., were acquitted or discharged. In 1916, 53·9 per cent. of the persons tried were convicted.

Of the persons acquitted or discharged, the cases of 50,015 were compounded, withdrawn or dismissed for default. The percentage of convictions of persons actually tried was 71·5 against 71·1 in 1916.

Of the persons tried for offences under the Indian Penal Code, 34,738, or 31·5 per cent., were convicted, and 75,546, or 68·5 per cent., acquitted or discharged. Of the latter, the cases of 43,713 persons were compounded, withdrawn or dismissed for default. The percentage of convictions of persons actually tried under the Penal Code was 52·1 against 51·8 in 1916.

The total number of persons awaiting trial before Magistrates at the close of 1917 was 11,162 as compared with 9,978 in 1916. Of these, one who was on bail was awaiting trial for more than six months. Explanations of the delay in the disposal of all cases pending for more than three months, submitted by the magistrates concerned, have been considered by the High Court, and the necessary orders have been passed on them. The number of persons in custody at the close of the year was 1,042, against 757 in 1916.

The general result of trials before magistrates of each class was as follows :—

Class of Magistrates.	Number of persons.		
	Acquitted or discharged.	Convicted.	Percentage of convictions.
Benches of magistrates	3,675	10,667	74·3
Subordinate stipendiary magistrates ...	78,597	79,119	50·1
Honorary magistrates	10,504	17,903	63
Special magistrates	170	81	32·2
District magistrates	424	198	31·8

Of the persons shown as convicted above, the numbers tried summarily were by benches of magistrates, 9,123 ; by subordinate stipendiary magistrates, 33,241 ; by honorary magistrates, 1,418 ; and by district magistrates, 61.

The mode of trial of the total number of persons convicted and the nature of the sentences passed were as follows :—

Nature of trial.	Appealable sentence.	Non-appealable sentence.
On regular trial	42,904	20,939
On summary trial	3,278	40,288

Punishments.

98. The sentences passed on persons convicted were as follows :—

Imprisonment	...	Rigorous	16,955
		Simple	799
Fines	...	With imprisonment ...	2,722
		Without imprisonment ...	82,154
Whipping	...	Sole punishment	365
		Additional punishment ...	2

A term of solitary confinement was included in 53 of the sentences of rigorous imprisonment, and in the cases of 32 youthful offenders the sentence of imprisonment was commuted to one of detention in a reformatory school. Three thousand eight hundred and thirty-two persons were called upon to give security to be of good behaviour, 3,506 of whom were sentenced to terms of imprisonment not exceeding one year on failing to comply with the orders. Four hundred and eighty-five persons, against 496 in 1916, were released on probation under section 562 of the Code of Criminal Procedure. Against 23 persons who had previously been so released, proceedings were subsequently taken ; all were convicted and punished. In addition to substantive punishments, 4,540 persons were required to execute bonds to keep the peace, 1,338 on conviction of offences involving a breach of the peace.

Of the sentences of imprisonment imposed, 3,897 were for terms not exceeding 15 days ; 11,482 for terms not exceeding 6 months ; 5,814 for terms not exceeding 2 years ; and 35 for terms exceeding 2 years.

Sentences of whipping were passed on 367 persons as against 405 in the preceding year. Three of the sentences of whipping, against 14 in 1916. were not in accordance with the Whipping Act of 1909. In two cases, the sentences were executed, and in one case the sentence was set aside by the High Court on a reference made to it.

The fines imposed aggregated Rs. 7,99,891. Rs. 6,73,762 were realised, of which Rs. 99,644 were paid as compensation to complainants.

Miscellaneous proceedings.

99. In addition to criminal trials, the following were the more important classes of work dealt with by magistrates in the mufassal :—

Code of Criminal Procedure, Chapter VIII.

100. There were 2,589 proceedings under chapter VIII. Criminal Procedure Code, to prevent a breach of the peace, in which 11,197 persons were involved. The number of cases and persons involved were more than the number brought before the courts in 1916. Of the persons concerned 3,202 were required to execute bonds to keep the peace, in addition to the persons mentioned in the preceding paragraph as having been similarly bound down on conviction. The number of persons dealt with under this chapter was largest in Bakarganj (1,725), Faridpur (1,487), Mymensingh (1,283), Pabna (828), Bogra (808), Khulna (770), Dacca (664), Howrah (654) and Tippera (644). Bakarganj has headed the list since 1913. In Bogra and Tippera there was a large increase in the number of proceedings of this class, while there was a marked decrease in Bakarganj as compared with 1916.

In 2,138 cases, 5,142 persons were called upon to show cause why they should not give security to be of good behaviour, and the orders were made absolute against 4,265. Of these, 3,936 failed to give the required security and were imprisoned in default, 430 after reference to the courts of session under section 123 of the Code, and 3,506 under orders of magistrates, for terms not exceeding one year.

Chapters X, XII and XXXVI.

101. Proceedings for the abatement of nuisances under chapter X of the Code were taken in 989 cases, and in the cases of 526 persons a reference was made to a jury under section 138 of the Code. The number of cases under chapter XII of the Code, involving questions of the possession of land, decided by magistrates, was 1,350, an increase of 63 on the figures for 1916. Under section 250 of the Code, 523 complainants were ordered to pay compensation to accused persons, their accusations having been found to be frivolous or vexatious. Proceedings for maintenance under chapter XXXVI of the Code were taken against 1,056 persons, and orders were made absolute against 246.

Witnesses.

102. The number of witnesses examined in the courts of magistrates in the mufassal was 391,565, as compared with 368,060 in 1916. The number who attended and were discharged without examination was 190,643, or

32·7 per cent. of the whole number in attendance. In the preceding year, the percentage was 32·5. The amount paid to witnesses on account of the expenses of their attendance rose from Rs. 1,74,075 in 1916 to Rs. 1,94,131 in 1917. Of the total number in attendance, 429.793 (73·8 per cent.) were discharged on the first day; 109,293 (18·8 per cent.) on the second; 32,445 (5·6 per cent.) on the third; and 10,677 (1·8 per cent.) after the third day. The number of witnesses detained for more than three days was 619 more than in 1916. The districts in which the largest percentage of witnesses was detained for more than three days were Faridpur (4·4), Rajshahi (3·8), Howrah and Bakarganj (3). Explanations of these detentions have been dealt with by the High Court.

On a review of the returns of the district of Dacca, it was discovered that incorrect figures regarding the detention of witnesses had been submitted from the Munshiganj sub-division for a number of years. The matter has been reported to the local Government.

II.—Courts of Session.

Commitments.

103. The number of cases committed for trial or referred during the year was 1,366, or 21 less than in 1916; and the number decided, including pending cases of the previous year, was 1,353, or 116 less than in 1916. There were 167 cases pending at the close of the year. Commitments increased in 13 districts and decreased in 12, and remained the same as in the preceding year in one district. The increase was marked in the following districts: in Bogra from 30 to 54, in Tippera from 73 to 90 and in Pabna from 25 to 39. The decrease was noticeable in Faridpur from 115 to 96, in Rajshahi from 42 to 26 and in Midnapur from 68 to 54. The number of commitments was, as in the previous year, largest in Bakarganj (156).

Result of trials.

104. There were 3,560 persons, or 245 less than in 1916, under trial before courts of session. The cases of 3,137 persons were decided and 412 remained under trial at the close of the year. Of the 3,137 persons tried, 1,956, or 62·3 per cent., were convicted and 1,075 were acquitted or discharged, and the cases of 106 persons were referred to the High Court under sections 307 and 374 of the Code of Criminal Procedure.

Punishments.

105. The following sentences were passed by the courts of session:—

Death		18
Transportation	for life	122
	for a term of years	57
Imprisonment	rigorous	1,308
	simple	7
Fine		91
Whipping		6

In the cases of 32 of the persons sentenced to rigorous imprisonment, the sentences included terms of solitary confinement. Sixty-six of the sentences of fine and five of whipping were additional punishments. One of the sentences of whipping was not in accordance with the Whipping Act of 1909. The sentence in this case was executed. Besides the above, 430 persons were sentenced to rigorous or simple imprisonment (40 for terms not exceeding one year and 390 for terms between one year and three years) on failure to furnish security for good behaviour. One person, who had been convicted of an offence involving a breach of the peace, was required to execute a bond with sureties to keep the peace in addition to his substantive punishment. Sentences of imprisonment were passed for the following terms:—

Not exceeding	15 days	11
	6 months	94
	2 years	493
	7 „	1,087
Exceeding	7 „	55

Fines to the amount of Rs. 8,271 were imposed by courts of session, as compared with Rs. 8,971 imposed in the preceding year. The total realisations of the year aggregated Rs. 4,350, as compared with Rs. 4,727 in 1916.

The amount of fines realised and paid as compensation rose from Rs. 125 to Rs. 481.

Jury trials.

106. The number of persons tried by jury was 1,299 and of the persons so tried, the Sessions Judge approved of the verdict of the jury in respect of 1,123 persons and disapproved of it in respect of 176. The Sessions Judge disagreed with the verdict of the jury in regard to 88 persons and referred the cases to the High Court under section 307 of the Code of Criminal Procedure. The results of these references are given under the head "superintendence, reference and revision".

Trials with the aid of assessors.

107. The number of persons tried with the aid of assessors was 1,179. In the cases of 789 persons, the Sessions Judge concurred with the opinion of both the assessors; in the cases of 204 he differed from the opinion of one, and in the cases of 186 he differed from the opinion of both the assessors. The corresponding figures of 1916 were 1,165, 778, 208 and 179, respectively.

Duration of cases.

108. The average duration of session trials, from the date of commitment to the date of decision, fell slightly from 45·9 days in 1916 to 45·3 days in 1917. Notice was, as usual, taken by the High Court of all cases of unusual duration.

The duration of cases was highest in the districts of Birbhum (84), the 24-Parganas (80), Bakarganj (53·8), Dacca (50·7), Faridpur (50·4) and Howrah (50·3). There was a marked increase in the duration of cases from 30·2 to 84 days in Birbhum, from 33 to 46·3 days in Hooghly, from 68 to 80 days in the 24-Parganas and from 42 to 53·8 days in Bakarganj. On the other hand, there was a noticeable reduction from 78·8 to 31·7 days in Jessore; from 69·2 to 46·1 days in Malda; from 53 to 37 days in Khulna; from 52·8 to 37·5 days in Pabna; and from 44·7 to 30·2 days in Bogra.

Witnesses.

109. The number of witnesses in attendance before the courts of session was 26,068. Of these, 16,662 were examined and 10,406 discharged without examination. In 1916, the corresponding figures were 15,697 and 11,007, respectively. Of the total number in attendance, 10,467 (40·2 per cent.) were discharged on the first day; 8,854 (34 per cent.) on the second day; 4,184 (16 per cent.) on the third day; and 2,563 (9·8 per cent.) after the third day. The proportion of witnesses discharged after the third day was smaller than in 1916 (·2 per cent.). The High Court have taken due notice of cases of excessive detention of witnesses in reviewing the district reports. The amount paid to witnesses on account of the expenses incurred by them in attending sessions trials was Rs. 66,396, as compared with Rs. 70,875 in 1916.

Commitments, etc., to the High Court.

110. Five cases were pending at the opening of the year, and 41 cases were brought to trial in the High Court during the year. Of these, 45 were tried during the year and 1 remained undecided at its close. Altogether 52 persons were tried, of whom 33 were convicted and 19 acquitted. The number of witnesses examined was 453 and the average duration of cases from commitment was 36 days, against 34·2 days in 1916.

APPELLATE JURISDICTION.

I.—High Court.

Appeals.

111. At the opening of 1917, 38 appeals were pending before the High Court from sentences or orders of criminal courts. During the year, 660 appeals were preferred and 658 were decided, leaving 40 pending at its close. The number preferred and decided was 34 and 37 less than in the preceding year. The pending file shows an increase of 2. Of the appeals against sentences preferred, 561 were from courts of session and 97 from courts of Presidency Magistrates. Two appeals were preferred by the local Government against orders of acquittal.

Result of Appeals.

112. Five hundred and sixty-two appeals against sentences of courts of session were decided. The orders of the lower courts were upheld in 472 instances, reversed in 26 and modified in 58. Six cases were remanded for re-trial. Ninety-four appeals from the orders of magistrates of the Presidency town were decided, the orders being affirmed in 88 cases, modified in 2 and

reversed in 4. The results of appeals decided, as affecting individuals, were that the appeals of 804 persons were summarily dismissed under section 421 of the Code of Criminal Procedure, and that in admitted appeals, sentences on 192 appellants were confirmed, on 2 enhanced, on 110 reduced or altered and on 59 annulled. In the cases of 13 a new trial or further inquiry was ordered.

Appeal against acquittal.

113. Two appeals by the local Government against orders of acquittal were decided during the year. In one, the accused person was acquitted of offences under sections 304 and 148, Indian Penal Code, by a jury with whom the Additional Sessions Judge agreed. The High Court dismissed the appeal. In the other, two accused persons were convicted and sentenced by a Deputy Magistrate under sections 183 and 186, Indian Penal Code, but, on appeal, were acquitted by the District Magistrate. The High Court set aside the order of acquittal and convicted both the accused under section 183, Indian Penal Code, and sentenced them each to two months' rigorous imprisonment.

II.—Appellate Courts subordinate to the High Court.

Sessions Courts.

114. There were 199 appeals pending before the courts of session at the opening of the year. During the year, 3,692 appeals were preferred, 3,649 were decided and 243 remained pending at its close. The number of appeals preferred was 220 more than in 1916. In the appeals decided, 6,158 persons were concerned. The appeals of 1,212 persons, or 19·6 per cent., were summarily dismissed; 2,518 appellants, whose appeals were admitted, were altogether unsuccessful; 1,109 obtained a reduction or alteration of sentence; 1,214 were acquitted; and in the cases of 103 appellants, a new trial or further inquiry was ordered. The cases of 2 persons were referred to the High Court.

The proportion of persons whose appeals were wholly unsuccessful, successful in obtaining a modification of the original orders and successful in obtaining their reversal was 60·5, 18 and 19·7, respectively. Of those concerned in admitted appeals only, the proportions were 50·9, 22·4 and 24·5 per cent. If admitted appeals only are considered, these results were, on the whole, less favourable to appellants than in the previous year.

Magistrates' Courts.

115. In the courts of magistrates 176 appeals were pending at the opening of the year. During the year 4,062 appeals were preferred, 4,043 were decided and 194 remained pending at its close. The number preferred was more than in 1916 by 276. The number of persons whose appeals were decided by courts of magistrates was 6,978. Of these, the appeals of 1,705 were summarily dismissed and the sentences on 2,695 whose appeals were admitted were confirmed, making a total of 4,400 wholly unsuccessful appellants, or 63·1 per cent. Of the remainder, 927 appellants, or 13·2 per cent., obtained a modification of the sentences passed on them, and 1,601, or 22·9 per cent., total annulment. In the cases of 49 appellants, a new trial or further inquiry was ordered. Compared with 1916, the results were more favourable to appellants.

SUPERINTENDENCE, REFERENCE AND REVISION.

I.—High Court.

References under section 307 of the Code of Criminal Procedure.

116. Ten references under section 307 of the Code of Criminal Procedure from verdicts of juries were pending in the High Court at the opening of the year, and 44 were made during the year. Forty-four of these references were decided during the year and 10 remained undecided at its close. The result of the 44 cases disposed of was that the verdict of the jury was accepted in 12 cases, set aside in 27 and modified in 4. One case was remanded for retrial.

References under section 374, Code of Criminal Procedure.

117. Fifteen references under section 374 of the Code of Criminal Procedure for confirmation of death sentences were made to the High Court during 1917, and 4 were pending at the opening of the year. Eighteen were decided during the year, in which 23 persons were concerned. The death

sentence was confirmed in the cases of 6 persons, commuted to transportation for life in the case of nine and substituted by a sentence of five years' rigorous imprisonment in the case of another. Six persons were acquitted and the case of the remaining person was remanded for retrial.

Revision.

118. During the year, 163 cases were reported for the orders of the High Court by Sessions Judges and District Magistrates under section 438 of the Code of Criminal Procedure, and 11 were pending at the opening of the year. Of these, 171 were decided, and 3 remained pending. The number reported was 4 more than in 1916. In 54 cases the orders sent up for revision were set aside, or the proceedings quashed, and in 42 a new trial was ordered. Sentences were reduced or altered in 11 cases and enhanced in 7. In the remaining 57 cases the High Court declined to interfere.

Under section 435 of the Code of Criminal Procedure, orders were passed in 1,337 cases, an increase of 245 on the figures of the previous year. Of these, 1,334 came before the High Court on applications made to it, and 3 were taken up by the Court on review of sessions statements or otherwise of its own motion.

Of the applications for the issue of rules, 851 were rejected. Of 483 rules issued, 155 were finally discharged ; 121 were made absolute in their entirety ; the orders complained of were modified in 105 cases and quashed in 18 ; in 84 cases a new trial was ordered.

Of the 3 cases taken up by the High Court *suo motu*, the order passed by the lower court was not disturbed in one and the sentences were enhanced in the other two.

Applications for transfer.

119. Ninety-three applications under section 526 of the Code of Criminal Procedure for the transfer of cases (83 original cases and 10 appeals) from one court or district to another were on the files ; all of them were disposed of. Thirty-seven were summarily rejected, and in 15 cases transfers were granted without the issue of a rule. In 41 cases rules were issued with the result that transfers were granted in 18 and refused in 23 cases.

II.—Courts subordinate to the High Court.

Session courts.

120. Including accused persons who themselves applied for revision of the orders passed on them in the courts of magistrates, and accused persons against whom such applications were made by complainants, the cases of 7,889 persons were decided on revision by courts of session during the year. The number was more than in 1916 by 439. The applications of 2,318 persons were rejected, and as regards 2,603 the orders of the lower courts were confirmed. In the cases of 43 persons the orders passed were reversed ; in one instance proceedings were quashed, and in the cases of 7 persons the orders of the lower courts were modified. The cases of 270 persons were referred to the High Court, and in the cases of 2,647 persons new trials or further inquiries were ordered.

Magistrates' courts.

121. The cases of 3,209 accused persons who applied for revision, or against whom applications were made by complainants, came before District Magistrates for revision. The number was 603 more than in 1916. Of the total, the applications of 1,439 persons were rejected, and in the cases of 582, the original sentence or order was upheld. Sentences or orders affecting 55 persons were modified, and those affecting 196 were reversed. In the cases of 65 persons proceedings were quashed, and in those of 814 new trials or further inquiries were directed. The cases of 58 persons were referred to the High Court.

III.—General.

Trials of European British subjects.

122. The cases of 38 European British subjects were decided during the year, as against 37 in the previous year. Of these, 36 were dealt with by magistrates, one by the court of session, and one by the High Court. Of the accused persons, one claimed to be tried by a mixed jury. In the cases disposed of, 25 persons were convicted and 13 were acquitted.

The convictions were in 11 cases for offences under special and local laws; in 7 cases for offences under the Indian Defence Force Act and the Registration Ordinance and Rules, 1917; in 5 cases for offences against property; in one case for an offence affecting the human body and in another for criminal intimidation, etc. The number of European British subjects tried was largest in Burdwan (10).

Results of revisional work.

123. Compared with the figures of 1916, there was, during the year under review, a large increase in the number of criminal cases disposed of by magistrates both in the mufassal and in the Presidency town. Magistrates disposed of more appellate and revisional work. In the courts of session there was a decrease of original and an increase of appellate revisional work. In the High Court, there was a slight decrease in original and appellate work, but a substantial increase in revisional work.

Twenty-two persons (10 in Faridpur, 6 in Nadia, 3 in Tippera, 2 in Chittagong and 1 in Dacca) were under trial for offences against the State. Of these 9 were acquitted and 13 remained under trial at the close of the year.

During the year under review, illegal sentences of whipping were passed in 4 cases, as against 14 in 1916.

Receipts and charges.

124. Debiting, as usual, to the administration of criminal justice, a portion of the salaries of judicial officers calculated according to the time which their returns show them to have devoted to it, the total charges for the year amounted to Rs. 25,73,287. Of this amount, Rs. 14,63,943 were for the salaries of judicial officers; Rs. 1,56,375 for fixed and temporary copying establishments; Rs. 74,555 for process-servers; Rs. 4,21,297 for other establishments; and Rs. 4,57,117 for contingencies and refunds.

The receipts amounted to Rs. 17,86,918. Of this amount, Rs. 9,27,186 were under fines; Rs. 1,72,491 under process-fees; Rs. 1,79,054 under copying and comparing fees; Rs. 4,09,119 under court-fee stamp receipts other than the above; and Rs. 99,068 were miscellaneous receipts. Compared with the figures of 1916, the receipts show an increase of over Rs. 2,00,000 and the charges a decrease of over Rs. 45,000.

CRIMINAL JUSTICE IN THE SCHEDULED DISTRICT OF THE CHITTAGONG HILL TRACTS.

Chittagong Hill Tracts.

125. The number of cases brought to trial during 1917 in the scheduled district of Chittagong Hill Tracts was 161. The total number of cases disposed of was 154. The number of witnesses examined was 808. The total number of persons under trial, including those awaiting trial from the previous year, was 380; of these 193 were acquitted or discharged and 167 convicted. Of the cases brought to trial, 33 were for theft, 11 for criminal trespass and 31 for offences under special and local laws. The total number of appellants and applicants for revision was 67, of whom 33 were wholly or partly successful.

Jails.

[The Report on the Administration of the Jail Department in the Presidency of Bengal for the year 1917. Statistics of British India, Part VI—Administrative and Judicial.]

Jail population.

126. The increase in the jail population which has continued for some years past was again noticeable. The admissions during the year were 84,716 as compared with 80,828 in 1916, while the average daily population in 1917 was 15,929 as compared with 15,546 in the previous year. The statistics are, however, affected by the serious outbreak of *hât*-looting which took place in several districts during November and December 1917, with the result that on the 31st December 1917 there were nearly 4,000 under-trial prisoners in the Bengal jails, or more than double the ordinary number. The actual number of convicts admitted during 1917 did not greatly exceed those of the previous two years. Nevertheless, the capacity of the jails was severely strained, and overcrowding occurred at times in nearly all jails, although

it was mitigated wherever possible by transfers between jails and by the accommodation of prisoners in verandahs, work-sheds and godowns. Notwithstanding these difficulties, it is satisfactory to find that the number of jail offences of all kinds was substantially less than in the preceding year, the ratio of total punishments to daily population being 166 against 180 in 1916.

Health and mortality of prisoners.

127. Even more satisfactory is the indication of efficient jail administration afforded by the vital statistics. Judged by the number of admissions to hospital, the year was not a specially healthy one, but the number of deaths fell from 349 in 1916 to 253, and the ratio per mille from 22·4 to 15·8. This is by far the best record yet attained in Bengal, the lowest previous ratio being 20 in 1913. The construction of new hospitals at Rangpur, Dinajpur and Jalpaiguri resulted in a great improvement in the health of the prisoners at those jails, which were formerly very unhealthy. The death-rates in all the Central Jails, except Midnapore, were well below the provincial average, and Midnapore's ratio of 26, though still regrettably high, was much below the previous year's record of 42 deaths per mille. There seems to be no doubt that the improvement in the health of the jails was due, at least in some measure, to the increasing use of the wheat scale dietary. The use of wheat at one daily meal in lieu of rice has widely extended, and considerably more than half the prisoners have voluntarily adopted this diet. Statistics show that the incidence of bowel-complaints is distinctly less among them than among those on the ordinary rice diet. A special Tuberculosis Ward in charge of a trained Sub-Assistant Surgeon was opened in the garden of the Suri Jail for the accommodation of prisoners from the Western Bengal districts suffering from this disease and a similar ward is being constructed at the Comilla Jail for the reception of cases from Eastern Bengal.

Juvenile Jail.

128. A substantial advance was made in the development of the Juvenile Jail as an institution for the reformation of youthful criminals. A regular school was started with a staff of three teachers and a drill instructor, while the appointment of a Deputy Jailor relieved the Jailor of most of his purely jail duties and enabled him to devote more time to the educational and reformatory side of the institution. A tailoring industry was introduced under a tailor master for the benefit of Muhammadan boys, and it is reported that they already showed considerable aptitude in learning this work. The manufacture of quinine tablets and treatments is the most important industry at this jail. During the year 1,394,922 treatment tubes, each containing 20 tablets of four grains of pure quinine were sold, besides about 8½ lakhs of five-grain tablets.

Jail industries.

129. The outturn of jail manufactures again exceeded that of the previous year, though the net profits fell from Rs. 5 lakhs to Rs. 3 lakhs, owing mainly to the increase in the price of raw materials, which left a very small margin of profit on some of the articles supplied under contract to the Military and other departments of Government. Chaukidari uniforms were manufactured at a loss, but the rates have been revised since the close of the year. The Blanket Factory at the Dacca Central Jail supplied 27,600 blankets to the army in 1917, as compared with 16,600 in the previous year. The new castor-oil industry at the Rajshahi Central Jail nearly doubled its outturn, 142 maunds of medicinal oil and 616 maunds of lubricating oil having been produced during the year.

During the last two years, 606 prisoners have been sent to various Labour Corps in Mesopotamia, including porters, dhobis, carpenters, artizans and sweepers. The jails also supplied the army with large quantities of gunny-bags, gunny-cloth, coir fibre, castor-oil and mustard-oil, besides 44,000 blankets and over 356,000 bandages.

Warder Service.

130. The conduct of the Warder staff was on the whole satisfactory. There was a slight increase in departmental punishments, but the number of judicial punishments, representing serious infractions of duty, fell from 14 to 8. It is reported that the difficulties of recruitment have not been overcome by the small increase of pay which was sanctioned in 1916, and which has been discounted by the general rise in prices. Resignations also showed a tendency to increase.

Civil Justice.

[Report on the Administration of Civil Justice in the Presidency of Bengal during the year 1917. Statistics of British India, Part VI—Administrative and Judicial.]

Judicial staff.

131. The permanent civil judicial staff employed in the Presidency during 1917 consisted of 14 High Court Judges, 21 District Judges, 10 Additional District Judges, a Chief Judge and 5 Judges of the Presidency Small Cause Court, 3 Provincial Small Cause Court Judges who exercised also the powers of a Subordinate Judge, 43 Subordinate Judges, and 235 Munsifs. In addition, 4 executive officers exercised the powers of a Subordinate Judge or Small Cause Court Judge, and 2 the powers of a Munsif.

The following changes in the *personnel* of the High Court took place during the year :—

The Hon'ble Mr. Justice Digambar Chatarji resigned his office with effect from the 1st March, 1917. Mr. Maurice Smither officiated as a Judge from the 1st March till the 7th June, 1917, when the Hon'ble Nawab Sir Syed Shamsul Huda, K.C.I.E., was appointed to be a Judge in the vacancy caused by the resignation of the Hon'ble Mr. Justice Digambar Chatarji. Mr. Arthur Herbert Cuming officiated as a Judge from the 6th March till the 4th April, 1917, during the absence on leave of the Hon'ble Sir Ashutosh Chaudhuri, Kt. Mr. Maurice Smither again officiated as a Judge of the High Court, *vice* the Hon'ble Sir Ashutosh Mukharji, Kt., on deputation with the University Commission, with effect from the 17th November, 1917.

In addition to the permanent staff, the following temporary appointments in the subordinate courts were sanctioned during the year :—

One additional District Judge at Hooghly from the 1st February till the end of the year; one each in the 24-Parganas, Pabna-Bogra and Dinajpur, from the 2nd April, the 9th July and the 17th September, respectively, till the 13th October; one at Dacca for 6 months from the 1st March; and one at Bankura for a month and a half from the 11th June.

Temporary Additional Subordinate Judges were employed at Chittagong and Mymensingh from the beginning of the year till the 13th October and again from the 19th November till the end of the year; at Bakarganj, Murshidabad and Rajshahi from the 13th February, the 18th June and the 16th July, respectively, till the 13th October and again from the 19th November till the end of the year; and at Noakhali and Dinajpur-Jalpaiguri from the beginning of the year and the 1st March, respectively, till the 13th October. In addition, three Civilian Officers where employed as Subordinate Judges, *viz.*, one at Murshidabad from the 2nd January to the 28th February and then at Mymensingh from the 13th December till the end of the year; one at Nadia from the 23rd January to the 10th March; and one at Alipore (24-Parganas) from the 15th to the 29th January.

Temporary Additional Munsifs were employed at Dacca, Chittagong, Sirajganj (Pabna-Bogra), Balurghat (Dinajpur), Iswarganj and Jamalpur (Mymensingh), and Khulna throughout the year, exclusive of the vacation; and at Naugaon (Rajshahi) from the 7th June till the 13th October. In addition, one Civilian Officer was employed as Munsif at Alipore (24-Parganas) from the 2nd to the 14th January.

ORIGINAL JURISDICTION.

I.—High Court.

Original suits.

132. The number of civil suits pending on the original side of the High Court at the end of 1916 was 1,888, including 57 suits received by transfer from other courts; and the number instituted during 1917 was 1,377, including 18 suits received by transfer from other courts and 7 remanded for retrial during the year, making a total of 3,265 for disposal in 1917. Of the suits instituted during 1917, 840 were for money or moveable property, 136 were mortgage suits, and 67 were for immoveable property. The value of suits for specific money claims was Rs. 93,37,811-8-10, as compared with Rs. 1,29,67,532-10-1 in the previous year. The number of suits decided in

1917 was 1,278, and the number left undisposed of at the end of the year was 1,987. The number pending at the close of the year exceeded the number pending at the close of the previous year by 99. There were 1,042 suits pending over one year, showing an increase of 104 on the figures of the previous year.

Of the suits decided—

234 were dismissed for default or want of prosecution,
21 were withdrawn with leave,
67 were determined by compromise,
122 were decreed on confession,
355 were decreed *ex parte*,
1 was dismissed *ex parte*,
23 were disposed of by reference to arbitration,
342 were decreed after contest, and
113 were dismissed after contest.

Prize cases.

133. At the commencement of the year cases against 7 ships (in respect of 6 of which orders had previously been made for delivery to the Lords of the Admiralty upon their requisition) and one claim against the cargo of another were pending. No action was taken during the year in regard to any of the cases.

Cases under the extraordinary jurisdiction.

134. At the commencement of the year 7 suits were pending in the High Court in its extraordinary original civil jurisdiction, and 4 suits were transferred to it during the year. Of these 3 were disposed of during the year, and 8 remained pending at its close.

Probates and letters of administration, etc.

135. During the year 427 petitions for probate and letters of administration, and 7,875 interlocutory applications (including applications for the appointment of guardians under the Guardians and Wards Act, 1890, for the appointment of guardians *ad litem*, for the appointment of receivers, for injunction for discovery of documents, for execution, for summonses to witnesses for special leave to file written statements after time) were disposed of. Of the interlocutory applications, 4,493 were disposed of by the Court or by a Judge in chambers and the remainder (3,382) by the Registrar and the Master.

References to take accounts, etc.

136. The number of references to take accounts, to make inquiries as to estates to be administered or partitioned, as to debts and incumbrances, as to allowances to be made for maintenance, on questions of title, on questions affecting minors in proposed terms of settlement, to settle conveyances, and in like matters, pending at the commencement of the year, was 118. Fresh references were directed by the Court in 326 cases. Of the total number of references 322 were disposed of by the Registrar, the Official Referee and Master and their assistants.

Conveyances and sureties.

137. During the year the Registrar settled 18 conveyances and inquired into the sufficiency of sureties in 81 cases. The Registrar further inquired into the sufficiency of sureties in 215 matters in which administration bonds were executed.

Appeals from the original jurisdiction.

138. The number of appeals from the original to the appellate side of the court pending at the commencement of 1917 was 70, and 100 new appeals were preferred. Of these appeals 8 were dismissed for default or otherwise not prosecuted, and 107 were decided. Of the latter, the decrees of the courts of first instance were affirmed in 60 cases, modified in 9, and reversed in 31; 7 cases were remanded for retrial. Fifty-five appeals remained undecided at the close of the year.

References from the Calcutta Court of Small Causes.

139. At the commencement of the year one reference was pending. This was disposed of and none were made during the year under review.

Applications for the transfer of cases from the Calcutta Court of Small Causes.

140. Thirty-one cases transferred from the Calcutta Court of Small Causes under section 39 of the Presidency Small Cause Courts Act, 1882, were pending at the commencement of the year, and during the year 12 applications under that section were made to the High Court for transfer to that court. All the applications were granted. Of the 43 cases for disposal 8 were

dismissed for default, 1 was withdrawn with leave, 2 were determined by compromise, 2 were decreed on concession, 1 was decreed after contest, 2 were dismissed after contest and 3 were disposed of by reference to arbitration. The remaining 24 cases were pending at the close of the year.

Two cases were transferred from the Calcutta Small Cause Court under section 24 of the Code of Civil Procedure, and 19 were pending from the previous year. Of the 21 cases for disposal 3 were dismissed for default, and the others were pending at the close of the year. Fifteen applications under section 115 of the Code of Civil Procedure for the calling up of records from the Calcutta Court of Small Causes were pending at the commencement of the year and 6 such applications were made to the High Court during the year. Of these, 7 applications were refused, in 4 cases the rules issued were discharged and in 7 cases the rules issued were made absolute. Three cases were pending at the close of the year.

Full Bench references.

141. During the year under review 2 references were made to, and disposed of by, a Bench composed of five Judges.

Contempt of Court.

142. There was one case during the year. The *Amrita Bazar Patrika*, an Indian newspaper, published certain articles adversely commenting upon the High Court and the Chief Justice in his administration thereof. A rule was issued against the Printer and Publisher and the Directors and Managers of the newspaper. The rule was made absolute against the Printer and Publisher who was convicted and fined, and was discharged against the rest.

Insolvency cases.

143. The number of cases under the old and new Acts pending in the Insolvency Court at the commencement of the year was 167 and 615, respectively, and the number instituted during the year was 178. Of the 960 cases for disposal 200 were disposed of, the adjudication being set aside or superseded or the petition being withdrawn or dismissed in 109 cases, and the insolvents obtaining relief in 91. Two thousand four hundred and ninety-nine applications of a miscellaneous character were also disposed of during the year.

Duration of sittings.

144. For the hearing of original suits and applications one Judge sat alone for 47 days, two Judges sat separately and simultaneously for 110 days and three Judges sat separately and simultaneously for 51 days. The Insolvency Court engaged the time of one Judge for 11 days: Appeals from the original side and references from the Calcutta Court of Small Causes occupied a bench of two Judges for 111 days, and a bench of three Judges for 4 days. The references to the Full Bench and the hearing of the Contempt of Court case occupied the time of five Judges for 5 days, and a day respectively.

Appeals to the Privy Council.

145. Five appeals from the original side were pending from the previous year, and three were admitted during the year. Two of these appeals were disposed of during the year.

Receipts and expenditure.

146. The receipts and expenditure of the High Court on the original side during 1917 were Rs. 9,52,865-15-4 and Rs. 5,39,085-8-10, respectively.

Taxing Office.

147. The number of bills between party and party taxed during the year was 1,019 and of bills between attorney and client was 388.

The court-fees for taxation during the year amounted to Rs. 22,129. This sum is also included in the item "Other fees realized by means of stamps".

Financial results.

148. The following figures exhibit the financial results for the last three years, including under the head of expenditure the salaries of the Judges :—

Year.	Receipts. (*a*)	Receipts. (*b*)	Expenditure.
	Rs.	Rs.	Rs.
1915	8,91,332	4,05,442	4,97,075
1916	17,41,923	4,44,458	4,93,408
1917	9,52,865	3,85,062	5,39,085

(*a*) Including the duty raised on the grant of probates and letters of administration.
(*b*) Excluding ditto ditto ditto

II.—Civil Courts in the Mufassal subordinate to the High Court.

Original suits instituted.

149. The number of suits instituted in 1917 was 738,194, an increase of 27,610 on the figures of the previous year. The increase occurred in money, rent and title suits to the extent of 4·8, 3·6 and ·7 per cent. respectively. The number of money suits instituted was 316,418, against 301,655 in 1916.

The total value of suits instituted in 1917 amounted to Rs. 9,24,44,299, showing an increase of Rs. 81,70,602 over the total for 1916. The increase was due to the aggregate rise in the value of suits of all classes which were larger in number than in the previous year.

Local distribution.

150. There was an increase in the number of suits instituted in 1917 in all districts with the exception of the 24-Parganas, Jessore, Faridpur, Dinajpur, Khulna, Birbhum and Midnapore. The increase was most marked in Tippera, Mymensingh, Noakhali and Dacca, and occurred chiefly in money suits. The largest number of suits was instituted in the district of Mymensingh (73,910) where the number of title suits (6,800) was the heaviest in the province. In no other district did the institutions exceed 60,000.

In Tippera, Dacca and Faridpur institutions were between 50,000 and 60,000. Money suits were most numerous in Dacca (37,946). In Bakarganj, the 24-Parganas and Midnapore institutions were between 40,000 and 50,000. Rent suits were most numerous in Bakarganj (35,193), Mymensingh occupying the second place in this respect with 29,888 institutions. Institutions were between 30,000 and 40,000 in the districts of Noakhali, Rangpur, Jessore and Chittagong, between 20,000 and 30,000 in Pabna, Bogra, Nadia, Hooghly, Murshidabad, Dinajpur and Rajshahi, and between 15,000 and 20,000 in Khulna and Burdwan, Birbhum with 14,309 and Bankura with 13,974 show the lowest figures.

Nature of suits instituted.

151. The majority of suits instituted was, as usual, for small sums, as the following figures show :—

		Suits for money and moveables.	Suits under the rent law.	Title and other suits.
	Rs.			
Not exceeding	10	15,560	88,336	3,135
	50	127,752	177,257	15,925
	100	82,183	53,023	10,597
	500	84,479	35,010	26,198
Exceeding Rs. 500, or value not stated.		6,464	2,462	9,833
Total	...	316,418	356,088	65,688

In suits for money or moveables 45·2 per cent.; and in rent suits 74·5 per cent. were for sums of less than Rs. 50. In suits under the rent law 98·3 per cent. were for realization of arrears of rent. Of the suits, classified as title suits, 40·7 per cent. were mortgage suits, 42·1 per cent. were for immoveable property and 5·2 per cent. were for specific relief. The title suits represent in value more than one-third of the total litigation of the province. All the 25 suits instituted during the year, which were valued at over a lakh, were title suits.

Number of suits disposed of.

152. In addition to the 738,194 suits instituted during the year and the 192,265 suits pending trial from the previous year 10,871 suits were revived, or received on remand or review, making a total of 941,330 for disposal. The number of suits disposed of was 740,242, an increase of 35,904 on the figures of 1916. Of the total number disposed of 700,707 were disposed of by Munsifs, 22,675 by Subordinate Judges, 16,327 by Small Cause Court Judges and 533 by District and Additional Judges. The figures show an increase in all grades of courts except that of Small Cause Court Judges.

Results of suits decided.

153. In the suits disposed of during the year plaintiffs were unsuccessful in 124,954 cases, or 16·9 per cent., of which 94,733 were dismissed for default; in 81,959 cases, or 11·1 per cent., a compromise was effected. Plaintiffs were successful in 533,329 cases, or 72 per cent. The results are more favourable to plaintiffs than in the preceding year. Of the 122,190 suits decided on contest, 106,746, or 87·4 per cent., resulted in favour of plaintiffs, and 15,444, or 12·6 per cent. in favour of defendants.

Applications for retrial.

154. The percentage of applications for retrial to the number of cases which were dismissed for default, or in which decrees were made *ex parte*, was 4·3, the numbers being 21,675 and 498,818, respectively. The applications were successful in 9,500 cases, or 43·8 per cent.

Suits decided by Munsifs.

155. The number of suits disposed of by Munsifs rose from 665,914 to 700,707, an increase of 34,793. The average number of suits disposed of

by each Munsif was 2,871, against 2,717 in 1916. Disposals under the Small Cause Court procedure formed 28·1 per cent. of the total. The number of contested suits disposed of by Munsifs was 113,568, or 16·2 per cent. of the total. The average number of contested suits decided by each Munsif was 465, against 513 in 1916. In suits under the ordinary procedure disposed of by Munsifs the percentage of those contested was 16·4, and in suits under the Small Cause Court procedure 15·7. The figures are :—

Under ordinary procedure.		Under Small Cause Court procedure.		Total.
Contested.	Uncontested.	Contested.	Uncontested.	
82,530	421,274	31,038	165,865	700,707

The number of cases decided by Munsifs under the ordinary procedure shows an increase of 27,522, as compared with 1916.

Suits disposed of by Subordinate Judges and by Small Cause Court Judges.

156. The number of original suits disposed of by Subordinate Judges was 22,675, an increase of 1,435 on the figures of the previous year. The increase was in cases decided both under the ordinary procedure and in the exercise of Small Cause Court powers, and was spread over both contested and uncontested suits. The number of suits decided under the ordinary procedure was 5,950, and under the Small Cause Court procedure 16,725 ; of these 35 per cent. and 22·4 per cent., respectively, were contested. The percentage of suits decided after contest under the ordinary procedure shows a slight increase, and that of suits decided after contest under the Small Cause Court procedure a slight decrease, as compared with the previous year.

The provincial Small Cause Courts disposed of 16,327 original suits, of which 2,617 were contested. The latter shows a decrease of 218, as compared with the previous year.

Average duration of suits.

157. The average duration of suits (contested and uncontested) decided by the several grades of courts is given in the following statement :—

		District Judges.	Subordinate Judges.	Munsifs.	Small Cause Court Judges.
		Days.	Days.	Days.	Days.
Under ordinary procedure.	Contested ...	238	478	212	...
	Uncontested	195	295	121	...
Under Small Cause Court procedure.	Contested ...	...	94	80	94
	Uncontested	...	66	80	62

The results show a general increase in the average duration of both contested and uncontested suits before the Subordinate Judges and in that of contested suits before the Munsifs. There was, on the other hand, an appreciable improvement in the courts of District and Additional Judges.

Pending suits.

158. The number of suits pending at the close of the year was 201,096, against 192,265 in the previous year. The increase is chiefly due to larger institutions during the year. Of the pending cases 4,049 had been pending for more than a year, 60,818 for more than six months and 48,547 for more than three months. The figures show a considerable increase in the long pending arrears. Of the suits pending over one year 1,996 were in the courts of Munsifs and 2,053 in the courts of District and Subordinate Judges, the figures showing an increase of 98 and 265, respectively, as compared with 1916. The number of suits pending over a year was largest in Dacca (860), followed by Faridpur (470), Nadia (364) and Bakarganj (311). As compared with the figures of the previous year, the number of year-old suits shows a decrease in Bakarganj and an increase in Dacca, Faridpur and Nadia. In Dacca the congestion was chiefly due to a large batch of analogous suits before the Sub-Judge, 1st court, pending decision of some revision cases in the High Court. In Faridpur and Nadia the congestion occurred principally in the Munsifs' Courts. As usual, the delays were generally due to adjournments

granted at the request of the parties. Additional assistance was given to those districts where the file appeared to be too heavy for the normal staff.

Execution proceedings.

159. There were 115,967 applications for execution of decrees pending from the previous year, and 473,025 applications were made during the year. Realization was complete in 134,309 cases and partial in 90,270. In 239,967 cases proceedings were returned as infructuous, and 114,867 remained pending at the close of the year. Execution proceedings were markedly unsuccessful in Dacca, Faridpur and Pabna-Bogra, the percentages of totally infructuous proceedings being 74·8, 60·7 and 60·6, respectively. The results show a slight improvement in the case of Dacca (from 80·7 to 74·8). The total amount realized in courts other than Small Cause Courts was Rs. 1,99,11,948.

Debtors were imprisoned in 109 cases; moveable property was sold in 10,231 and immoveable property in 62,990 cases.

Miscellaneous cases.

160. The number of miscellaneous cases of a judicial nature instituted rose from 79,695 to 86,828. The number disposed of and pending also rose from 78,153 and 19,305 to 86,599 and 20,284, respectively. Of the cases disposed of 41,563 were withdrawn, compromised, or confessed; 26,483 were decided *ex parte*, and 18,553 were contested. Of the total number of applications disposed of after contest 50·8 per cent. were granted. Of the pending cases 132 had been pending more than a year, of which the largest number was in Hooghly (56).

The number of miscellaneous cases of a non-judicial nature instituted was 7,053, showing a decrease of 724. Of these, about two-thirds were applications for the deposit of rent. Disposals numbered 7,056, and the pending file fell from 823 to 816. The number of applications for the deposit of rent was highest in Rajshahi (476), followed by the 24-Parganas (436), Midnapore (411), Hooghly (398) and Bakarganj (393).

III.—Calcutta Small Cause Court.

Number of suits.

161. The number of suits instituted and decided in the Presidency Court of Small Causes during 1917, and the number pending at its close, were 23,371, 24,602 and 4,052, respectively. Institutions and disposals show a decrease of 1,704 and 1,862, respectively, while the number pending was more than in 1916 by 129. Forty-five applications were filed under section 626 of the Calcutta Municipal Act (Bengal Act III of 1899). The decrease in institutions was spread over all classes of suits. The total value of the litigation was Rs. 51,44,610, as against Rs. 55,32,375 in the preceding year.

The average duration of contested and uncontested suits was 83·1 and 47·5 days, respectively. The figures for 1916 were 63·5 and 42·1, respectively.

Mode of disposal.

162. Of the 24,602 suits disposed of 1,307 were dismissed for default or want of prosecution, or were withdrawn with leave, 19,106 were decided without contest in the manner shown in the margin, 4,175 were decided after contest or upon reference to arbitration, and in 14 the plaint was either rejected or returned.

Compromised ...	6,450
Decreed on confession	4,321
Decreed *ex parte* ...	8,145
Dismissed *ex parte* ...	100
Total ...	19,106

Of the 4,052 suits remaining under trial at the close of 1917, 1,747 had been pending for more than three months, against 1,389 so pending at the close of the preceding year.

Execution of decrees.

163. Of 52,316 applications for the execution of decrees dealt with during the year, including 6,953 pending from the previous year, 43,490 were determined and 8,826 remained pending at the close of the year. Of the latter 196 were more than three months old. Of the applications disposed of 36,080 resulted in whole or partial satisfaction of the decrees granted, 4,070 were returned as wholly infructuous, and 3,340 were transferred to other courts.

The total amount realized was Rs. 12,06,013, as compared with Rs. 12,28,465 in the previous year.

In order to enforce the execution of decrees imprisonment was resorted to in 73 cases and sale of moveables in 414. These figures are less by 24 and 10, respectively, than those of 1916.

APPELLATE JURISDICTION.

I.—High Court.

Appeals under section 15 of the Letters Patent.

164. One hundred appeals from decisions on the original side were filed during the year and 70 were pending at its commencement. Of the total, 115 were decided and 55 remained pending at the close of the year. The number of appeals disposed of was 37 more than in 1916. On the appellate side 18 such appeals were filed during the year, and 238 were pending at its commencement. Of these, 229 were decided and 27 remained pending at the close of the year.

II.—Appeals from the Subordinate Civil Courts.

Appeals to the High Court from subordinate courts.

165. The statement in the margin shows the number of first and second appeals from the decrees and orders of the provincial courts as courts of original and appellate jurisdiction, respectively, which came before the High Court and were decided during the year. The figures include appeals from the courts of Assam. The institutions of first and second appeals from decrees and orders were, respectively, 30, 41, 5 and 20 more than in 1916.

	Pending at the end of 1916.	Preferred.	Decided.	Pending at the end of 1917.
FIRST APPEALS.				
From Decrees ...	782	334	372	744
From Orders ...	401	299	316	384
SECOND APPEALS.				
From Decrees ...	4,319	2,716	2,695	4,340
From Orders ...	61	128	150	39
Total ...	5,563	3,477	3,533	5,507

Appeals decided and pending.

166. The disposals of first and second appeals from decrees and orders show a decrease of 127, 134, 98 and 90, respectively, on the figures of the previous year. At the close of the year 1,128 first appeals were pending, of which 744 were from decrees and 384 from orders; and 4,379 second appeals, of which 4,340 were from decrees. The total is less than the number pending at the close of 1916 by 56.

Result of appeals.

167. Of the 372 appeals from original decrees decided, 94 were uncontested, being dismissed on default, withdrawn, or compromised. The result of the appeals decided after contest was that the decrees of the lower courts were confirmed in 173, reversed in 52 and varied in 32 cases, while 21 cases were remanded. Of the 2,695 appeals from appellate decrees decided 250 were uncontested, and 990 were dealt with under order XLI, rule 11, of the Civil Procedure Code. One thousand four hundred and fifty-five appeals were heard and determined, with the result that 1,113 decrees of the lower courts were affirmed, 154 reversed and 40 varied, while 148 cases were remanded. Of the 466 appeals from orders decided 81 were uncontested, 100 were dealt with under order XLI, rule 11, of the Civil Procedure Code, and 285 were decided after trial, with the result that 177 orders of the lower courts were affirmed, 68 reversed and 5 varied and 35 cases were remanded. The following table shows the results of appeals decided by the High Court as affecting District Judges and Subordinate Judges :—

	Affirmed.		Modified or Reversed.	
	District Judges.	Subordinate Judges.	District Judges.	Subordinate Judges.
Appeals from original decrees	61	112	22	62
Appeals from appellate „ ...	444	669	83	111
Miscellaneous appeals ...	72	105	30	43

Appeals to the Privy Council (including appeals from Bihar and Orissa over which the High Court continued to exercise jurisdiction in pursuance of the Letters Patent, dated the 9th February 1916).

168. At the opening of the year 95 appeals to the Privy Council were under preparation for despatch to England and 147 were pending for orders. One hundred and twenty-eight new appeals were filed during the year. Of the total for disposal 42 were struck off or compromised, 36 were despatched to England and 292 appeals were pending at the close of the year, *viz.*, 102 of 1914, 26 of 1915, 55 of 1916 and 109 of 1917. Of the pending appeals 95, including 42 from Bihar and Orissa, were under preparation for despatch to England at the close of the year.

Results of appeals to the Privy Council.

169. The results of 13 appeals to the Privy Council were received during the year. The decisions of the High Court were affirmed in 9 instances and reserved in 4.

III.—Appellate Courts subordinate to the High Court.

Appeals instituted.

170. Nineteen thousand three hundred and thirty appeals were instituted in 1917, showing an increase of 3,614, as compared with the previous year. Of the appeals instituted 7,798 were in title suits, 9,039 in rent suits and 2,493 in suits for money or moveables. The numbers show an increase in the institution of appeals of all classes. The number of appeals valued at sums below Rs. 10, and between Rs. 10 and Rs. 50, was 1,850 and 5,702, respectively. The total value of the appeals instituted in the subordinate courts was Rs. 34,77,061, and exceeded the total of 1916 by Rs. 6,82,146 The number of cases in which an appeal lay, decided by subordinate courts, was 76,856, and the proportion of appeals instituted to appealable decisions, excluding appeals from decisions of revenue officers, was 22·8 per cent. as against 18·6 in 1916. The highest percentages were in Burdwan (47·1), Nadia (35·2), Noakhali (33·5) and Hooghly (32·2); while the lowest were in Rangpur (14·8), Dinajpur (16·1) and Birbhum (17·4). The number of appeals instituted was larger than in the previous year in 18 and smaller in 3 districts. The largest increases were in Midnapur (867), Mymensingh (578), Noakhali (400), Dacca (360), Nadia (318), Faridpur (267), Bakarganj (140) and Rajshahi (130); while there was a noticeable decrease in Chittagong (120). In the remaining districts the variations were less than 100.

Appeals disposed of.

171. The number of appeals decided (18,281) was more than in 1916 by 1,506. In the courts of District and Additional Judges disposals increased by 941, and in those of Subordinate Judges by 565. The number of appeals disposed of after contest (15,331) was 1,611 more than in 1916.

The increase in disposals was spread over 12 districts and was greatest in Noakhali (485), followed by Dinajpur (429), the 24-Parganas (413) and Bakarganj (334). The increase in Noakhali was largely due to the District Judge being able to devote more time to civil work. In Dinajpur, the 24-Parganas and Bakarganj it was mainly due to temporary assistance given during the year. There was a noticeable decrease, on the other hand, in Tippera (645), which was partly due to the inability of District and Additional Judges to devote as much time to civil work as in the previous year, and partly to the deputation of one of its Subordinate Judges to another district for over 6 months.

Appeals pending.

172. There were 18,016 appeals pending at the close of the year, the number being 1,564 more than at the end of 1916. The number of appeals pending for more than a year fell during the year from 2,917 to 1,875. The largest number of such appeals was pending in Nadia (493), but most of these consisted of analogous appeals pending before the District Judge for the substitution of the heirs of deceased respondents after the disposal of a batch of second appeals in the High Court.

Results of appeals.

173. The result on the decision of the lower courts of the appeals decided during the year was as follows :—In 10,322 cases, or 56·5 per cent. of the whole, the judgment of the lower court was affirmed ; in 2,058 cases, or 11·3 per cent., it was modified ; and in 2,902 cases, or 15·8 per cent., it was reversed. Six hundred and ninety-three appeals, or 3·8 per cent. were remanded,

and 2,306, or 12·6 per cent., were either not prosecuted or dismissed for default. The results are more favourable to the lower courts than in the preceding year.

Miscellaneous appeals.

174. There were 3,252 miscellaneous appeals instituted during the year, and 3,155 were disposed of, 1,052 remaining pending at the close of the year. The number pending is 149 more than in the previous year.

General.

175. There was again a large increase in the number of original suits instituted in the mufassal courts, and although the disposals were greater than the institutions, there was a considerable increase in the pending file and in the number of suits over one year old. There was also a large increase in the number of appeals instituted during the year, but the outturn, though greater than in the previous year, failed to keep pace with the institutions, with the result that the pending file increased. A substantial reduction was, however, effected in the number of appeals pending over one year. On the appellate side of the High Court the institutions increased, and the disposals, though smaller than in the previous year, were in excess of the institutions. The result was a reduction of the pending file.

Inspection.

176. The courts of 20 Subordinate and Small Cause Court Judges and 181 Munsifs were inspected by District and Additional District Judges.

Receipts and charges of the civil courts.

177. The receipts of the civil courts in Bengal and of the High Court amounted to Rs. 1,47,56,574, a decrease of Rs. 2,91,791 on those of the previous year, and the charges to Rs. 61,99,822, an increase of Rs. 3,89,365 on those of 1916. Including the amount realized on account of duty* on probates, etc., there was a profit to Government of Rs. 85,56,752 from civil litigation, and excluding this item, the profit amounted to Rs. 78,17,269.

	Rs.
In the High Court . .	5,30,034 (a)
In other courts . . .	2,09,449 (a)
TOTAL .	7,39,483*

(a) The figures are for the financial year 1917-18.

Details of the receipts and charges are as follows :—

Receipts.

		Rs.
In stamps	Process fees .	28,91,424
	Other fees .	1,09,67,108
In cash or special stamps.	Fines . .	4,432
	Copying and comparing fees . .	6,09,485
	Other receipts	2,84,125
	Total .	1,47,56,574

Charges.

		Rs.
Salaries of judicial officers .		26,19,443
Establishment	Process servers	5,50,033
	Others .	19,34,100
Copyists' fees . . .		5,15,270
Contingencies and refunds . .		5,80,976
Total .		61,99,822

There was a decrease in receipts under the heads "other fees" and "other receipts". Under the former head the decrease amounted to more than Rs. 4,00,000. The increase in expenditure was under all heads except "process servers", and was most marked under the head "salaries of judicial officers" which rose by over Rs. 2,00,000.

CIVIL JUSTICE IN THE SCHEDULED DISTRICT OF THE CHITTAGONG HILL TRACTS.

Chittagong Hill Tracts.

178. The total number of suits instituted during 1917 in the Civil Courts in the scheduled district of the Chittagong Hill Tracts was 316. Of these suits 310 were for money or moveable property. The total number of civil suits for disposal was 434. Of these suits, 85 were contested and 158 were disposed of without trial. The number pending at the end of the year was 16. The number of miscellaneous cases was 2,193. Of these 1,394 were decreed *ex parte* and 410 were pending at the close of the year. The total number of appeals from decrees was 78, and the number disposed of was 71. Seven miscellaneous appeals were preferred and none remained pending at the end of the year. Eight hundred and ninety-five applications were made for execution of decrees, of which 257 were pending at the end of the year.

Registration.

[Statistical Returns of the Registration Department in the Presidency of Bengal for the year 1917. Statistics of British India, Part II—Commercial ; Part VI—Administrative and Judicial.]

Progress and Statistics.

179. Three offices were opened during the year under review, *viz.*, at Assassuni in the district of Khulna, at Joydebpur in the district of Dacca and a joint-office at Narayanganj in the same district. There were 406 offices at the end of the year as against 403 at the end of 1916.

The total number of registrations in Books 1, 3 and 4 decreased from 1,750,080 in 1916 to 1,664,185 in 1917, *i.e.*, by 4·9 per cent. The total income of the department fell from Rs. 20,88,225 in 1916 to Rs. 20,57,316 in 1917, or by 1·4 per cent., and the total expenditure increased from Rs. 10,47,007 in 1916 to Rs. 10,74,315 in 1917, *i.e.*, by 2·6 per cent. The excess was slight and was due mainly to larger expenditure on temporary establishment sanctioned for experimental and temporary offices opened with a view to serve public convenience, to meet the pressure of copying work in some districts and to secure more speedy completion.

Results.

180. The decrease in the total number of registrations has been largest in the Burdwan Division, being 9·1 per cent. It was shared by all the districts, but it was most marked in the district of Burdwan, where it was 22·5 per cent., the fall being chiefly under mortgages which is attributable to good harvests. The decrease in the Presidency Division was 5·2 per cent. and was shared by all the districts, except Khulna and Calcutta. In Calcutta, the increase was 9·4 per cent. and was chiefly under sale and mortgage due to the operations of the Calcutta Improvement Trust, and under miscellaneous registration due to attempts to float small industries. In Khulna the increase was 3·7 per cent., due mainly to a larger number of mortgages and perpetual leases : the former being attributed to poor middle class people being affected by the high price of imported articles and the dislocation of business and the latter on account of the landed classes granting perpetual leases on taking premia. The Rajshahi Division has shown a decrease of 5 per cent. which has been shared by all of its districts except Rajshahi and Darjeeling, where there was an increase of 11·3 per cent. and 3·5 per cent., respectively. In Rajshahi the increase was chiefly under mortgages and is ascribed to the reluctance of *mahajans* to lend out money unless registered deeds of mortgage were given. In Darjeeling, the increase has been under sale due to lands being taken up for the purpose of opening new tea-gardens in the Terai. In the Dacca Division, the decrease has been 4·1 per cent. and has been shared by all the districts except Mymensingh, where there was an increase of 1·6 per cent. only, chiefly under mortgages due to depression in the jute market and the high price of imported commodities. In the Chittagong Division, the decrease has been the least, being 1·3 per cent. Registration fell off in both the districts of Chittagong and Noakhali and rose in the district of Tippera by 10·6 per cent. The increase has been most noticeable under sale and mortgage on account of the low price of jute and the destruction of paddy crops by floods for two years in succession. There has also been some increase under leases due to settlement operations being in progress in the district.

WORKING OF THE MARRIAGE ACT, III OF 1872.

Working of the Marriage Act III of 1872.

181. Thirty-two marriages were registered during the calendar year 1917 under the Marriage Act, III of 1872, against 44 in 1916. Out of these 25 were registered in Calcutta, 3 in Dacca and 1 each in Midnapore, Rajshahi, Faridpur and Mymensingh. Of the 49 Marriage Registrars under the Act, only 10 registered marriages during the year.

Working of the Muhammadan Marriage Registration Act and the Kazis Act.

182. Bengal Act I of 1876 (an Act for the Voluntary Registration of Muhammadan Marriages and Divorces) was in force throughout the province. There were 278 offices at the end of the year 1917, against 276 at the end of 1916. The total number of ceremonies registered during the year showed a small increase of 135 or 2 per thousand as compared with the previous year, the figures being 65,126 and 64,991, respectively. The total receipts of the

Muhammadan Registrars including gratuities amounted to Rs. 1,32,634-2 in the year under report, against Rs. 1,32,905-13 in the previous year, showing a small decrease of Rs. 272 or Rs. 2 per thousand.

A draft bill to consolidate and amend the law in force relating to the Voluntary Registration of Muhammadan Marriage and Divorce under the Bengal Act, I of 1876, and to appointments, powers and duties of Kazis under Act XII of 1880, was submitted to Government in 1916. The important modifications in the law suggested were (*a*) to abolish Naib Kazis, (*b*) to repeal section 10 of Bengal Act I of 1876, permitting a Muhammadan Registrar to receive a gratuity in addition to the prescribed fee of one rupee, (*c*) to legalise the divorces effected by the wife alone in accordance with the authority conferred as a condition of her marriage, (*d*) to legalise the registration by a Muhammadan Registrar of such deeds of dower and divorce as do not deal in any manner with immoveable property. The proposals were not approved by Government. With a view, however, to improve the working of the Act, it has been ordered that steps shall be taken to increase the number of offices in areas where facilities for registration are at present insufficient, and that in making appointments local candidates should be given preference, and that local Advisory Committees should be formed to assist in making selections. The functions of the Permanent Committee for the supervision of Muhammadan Registrars and Kazis have been restricted to those of an Advisory Committee on general questions and of an Examining Board.

Working of the Indian Companies Act, 1913 (VII of 1913).

183. The number of registered companies at the close of the year was 1,178 with a total nominal capital of Rs. 1,18,26,76,140 and a paid-up capital of Rs. 41,99,34,504, as contrasted with 1,075 companies with Rs. 1,06,35,84,540 nominal and Rs. 37,07,03,307 paid-up capital in the previous year. One hundred and sixty-six companies were registered during the year, against 114 in 1916-17. Of these no less than 39 were registered in March 1918, evidently in order to avoid the legislation restricting the issue of new capital in connection with limited liability companies. Of the new companies registered during the year, 143 were limited by shares and 4 by guarantee, while 19 were registered under the Societies Registration Act, 1860 (XXI of 1860). Two hundred and thirty-nine companies increased and 40 reduced their capital, the respective figures in 1916-17 being 234 and 37. Forty-one companies ceased to work, went into liquidation and were finally dissolved or otherwise became defunct as compared with 44 in the previous year. The total net receipts from all sources amounted to Rs. 61,743-9 or Rs. 19,869-7 more than the previous year.

Three new certificates to auditors of companies were granted under the provision of section 144 (*2*) of the Act. At the close of the year 12 persons holding certificates from this Government were entitled to audit the accounts of companies throughout British India, while the operations of 21 such certificate-holders were restricted to this Presidency only.

Twenty-eight were prosecuted in the Police Courts during the year, of these 7 cases ended in conviction, 7 were discharged or withdrawn and 21 remained pending at the close of the year.

Working of the Provident Insurance Societies Act, 1912 (V of 1912).

184. No new provident insurance societies were registered, while 14 of the old societies ceased to exist during the year.

Municipal Department and Local Self-Government.

MUNICIPALITIES OUTSIDE CALCUTTA.

[Reports from the Commissioners of Divisions on the working of Municipalities in the Bengal Presidency (except Calcutta) during the year 1917-18. Statistics of British India—Part VIII—Local Funds.]

Number of municipalities and rate-payers.

185. The number of municipalities increased from 113 to 115 in consequence of the partition of Bhadreswar into the two separate municipalities of Bhadreswar and Champdani and of the partition of Halisahar into the municipalities of Halisahar and Kanchrapara. The number of rate-payers decreased from 321,099 to 316,563, the reduction being largest in the Presidency Division where it amounted to 4,988.

The ratio of rate-payers to the population residing within municipal limits averaged 15 per cent. in the Presidency as a whole, and varied in individual towns from 36 per cent. in Katwa to less than 4 per cent. in the mill-town of Titagarh.

Elections.

186. General elections were held in 22 municipalities during the year. In the majority of cases the attendance of voters was satisfactory, but there was no poll in three municipalities, and in five other cases votes were recorded in only one ward. The election at Nawabganj, of which the Commissioners had hitherto been appointed by Government, was hotly contested. The elections in two wards of the Baduria Municipality had to be declared null and void for a second time by the District Magistrate owing to irregularities in election proceedings.

Assessment and taxation.

187. The incidence of taxation fell slightly and now averages Rs. 2-4-11 per head of the population. It is highest in the hill-stations of Darjeeling (Rs. 8-10-7) and Kurseong (Rs. 6-13-10) and in the suburban municipality of Cossipore-Chitpur (Rs. 6-9-10). In only three other towns (Howrah, Chittagong and Mymensingh) is it above Rs. 4, while it is below Re. 1 in 44 municipalities, or two-fifths of the total number, falling in five cases to below 8 annas a head.

Only about one-sixth of the municipal population, however, pays rates, and a truer idea of the incidence of taxation can, therefore, be gained by considering the amount paid by the actual rate-payers, which averages Rs. 14-6-6 per rate-payer for the whole Presidency. The diversity for individual towns is great, the rate-payers in Darjeeling, for instance, paying nearly Rs. 132 a head, while those in some of the petty rural towns pay on the average under Rs. 2 each.

In the Presidency as a whole altogether 5½ per cent. of the amount realized from holding, conservancy, lighting and water rates and taxes is paid for Government buildings. The payments represent in Darjeeling, Berhampore and Chittagong approximately one-twelfth, in Dacca one-eigth and in Rampore-Boalia nearly one-fifth of the municipal receipts from these rates, which constitute the bulk of the income from taxation. These figures serve to illustrate the fact, which is not always realized by the municipalities themselves, that, apart from its position as a controlling authority, Government has a direct interest as a rate-payer in the purity and efficiency of municipal administration.

Revision of assessment.

188. A general revision of assessment was effected in twelve municipalities, while the revision made in the previous years took effect in two other towns. In Dacca, the net increase of revenue amounted to Rs. 40,451, of which Rs. 39,439 were due to the introduction of a revised scale of latrine fees. Pabna secured an increase of Rs. 7,439 and Dinajpur of Rs. 2,630, while in Nator an enhancement of the rate of taxation brought in an additional income of Rs. 2,542. The revision of assessment in Bogra resulted in an increase of Rs. 5,973, but is subject to the result of many appeals. A revision of assessment on the basis of a valuation of holdings in lieu of a tax on persons was undertaken in the Comilla Municipality.

Collections.

189. The total collections fell from Rs. 45,04,800 to Rs. 44,82,680, the percentage on current demand being consequently reduced from 96 to 92. There was a decrease of Rs. 89,396 in the Burdwan Division alone, where the percentage on current demand was 85, against 96 in 1916-17; this was principally due to the inability of the Howrah Municipality to collect a large proportion of its current demand owing to causes which will be referred to later. In 8 municipalities the collections were in excess of the current demand and in 15 they were over 99 per cent. On the other hand, the ratio was under 85 per cent. in 8 municipalities, falling as low as 69 per cent. in Bansberia and 51½ per cent. in the newly formed municipality of Kanchrapara. The amount of remissions was smaller than in the previous year and represented under 3 per cent. of the current demand. Only 3 municipalities remitted more than 10 per cent., *viz.*, South Dum-Dum, Taki and Debhatta, while four remitted over 7 per cent.

There was an abnormal increase in outstanding balances, which rose from Rs. 3,75,345 to Rs. 6,12,128. Of this amount Howrah alone was responsible for Rs. 2,20,857; half of this figure is accounted for by the fact that a sum of

Rs. 1,10,088, which was paid on account of taxes by the East Indian Railway on the last working day of the year, could not be credited to the municipal fund during the year. A balance of Rs. 45,000 in Cossipore-Chitpur was due, as in the previous year, to the non-payment by the Corporation of Calcutta and the Eastern Bengal Railway of taxes due from them. Other municipalities which had unduly large outstandings were Burdwan, Midnapore, Hooghly-Chinsura, Serampore, Bally, Maniktala, Tollygunge, Dacca, Mymensingh, Barisal and Rampore-Boalia. No satisfactory explanation has been furnished of these large outstanding balances, which are generally due to laxity in collections and the neglect of the municipal executive to enforce punctual payments, quarter by quarter, by means, where necessary, of a regular and impartial issue of warrants.

Income and expenditure.

190. The total receipts, including opening balances, amounted to Rs. 83,58,974, as against Rs. 81,14,287 in the previous year. The increase was mainly due to grants and loans received from Government, large grants being made to the municipalities of Midnapore, Nator and Satkhira for water-works schemes, while loans aggregating 1¾ lakhs were given to Dacca and Mymensingh for similar projects. The total actual income showed an increase of Rs. 1,69,763 and amounted to Rs. 58,62,251. Receipts from rates and taxes fell from Rs. 46,07,994 to Rs. 49,59,861, but there was a slight increase in receipts from other sources. The total expenditure rose from Rs. 65,30,795 to Rs. 66,74,302.

General administration and collection charges.

191. There was a decrease of a lakh under the head of "General Administration and Collection Charges". The decrease is mainly due to the fact that the figure for the previous year included the sums of Rs. 49,347 expended on a survey of the Howrah Municipality and of Rs. 94,794, being the balance of a Government grant refunded by Narayanganj. If these sums are left out of account there is an all-round increase, which is attributed to the rise in the price of stationery, the grant of grain compensation allowances and increments of the pay of municipal employees. The net percentage of the cost of administration on the total expenditure, however, fell from 8·6 to 8·1, the proportion varying from 2·4 per cent. in Uttarpara and 4·6 in Dacca to the high figure of 33·03 in Debhatta and 24·6 per cent. in North Dum-Dum.

Education.

192. The total amount spent on education was Rs. 2,61,514, or 4½ per cent. of the municipal income. The expenditure was nearly Rs. 13,000 more than in the previous year, but Government grants rose by Rs. 22,000 and the receipts from other sources by Rs. 4,000; there was consequently a decrease in the amount devoted to education by the municipalities themselves. Deducting the grants made by Government and other contributions, the expenditure from the municipal fund was only Rs. 1,90,546, or 3¼ per cent. of the municipal income.

The educational expenditure consists mainly of grants to private schools. In the whole of Bengal there are only 8 municipal primary schools, *i.e.*, primary schools entirely maintained by municipalities. Some still fail to realize their obligations in regard to primary education; during the year under review the amount spent on it by 17 municipalities, or approximately one in seven, was less than 3·2 per cent. of their ordinary income —this percentage is taken as representing the amount required for the education of half the boys of school-going age. On the other hand, 55, or nearly half the total number, spent over 5 per cent. of their income, compared with 42 in the previous year, while 8 spent more than 10 per cent. On the whole, the municipal towns of Bengal are well provided with primary schools, though their standard and equipment leave much to be desired, and in some places the number is so large as to lead to overlapping, with consequent waste of money, unhealthy competition and inefficiency. Recent enquiries have shown, for instance, that there are 12 primary schools to the square mile in Howrah and Bankura, 11 in Bogra, 7 in Serampore, 5 in Midnapore and 3 in Burdwan.

Water-supply.

193. The provision of a pure water-supply is one of the greatest needs of Bengal towns, which, however, are unable to bear the expense of constructing water-works without large grants from Government. Of late years the amount which Government is able to contribute has been curtailed by financial stringency, and the execution of many useful schemes has

consequently had to be deferred; but during the year under review it was possible for Government to give substantial grants and loans, with the help of which considerable progress was made. A grant of a lakh was made to the Midnapore Municipality, where a start was made with a much needed water-supply scheme, while a project for Uttarpara was nearly completed, the expenditure during the year being Rs. 83,000. The construction of new water-works at Satkhira was pushed on; the improvement of those established at Berhampore was taken in hand; and a scheme for the supply of filtered wator to Krishnagar received administrative sanction. In Dacca an important project for the improvement of the existing system was undertaken with the aid of a Government loan of a lakh, while a loan of Rs. 70,000 was given to Mymensingh for the improvement of its system. The construction of water-works, to which Government had made a substantial contribution, was also in progress at Natore. Pipe water was extended to almost all the roads in Barisal, where the public health is reported to have improved greatly in consequence of the introduction of a supply of filtered water. But the management of the water-works was unsatisfactory and apathetic. The water-works at Pirojpur had to be closed owing to the impurity of the filtered water, and steps have been taken to repair the filtered beds.

Drainage. 194. The poverty of municipal resources and the limitation on the amounts which Government could contribute impeded progress with large schemes of drainage. Tangail was, however, able to bring a scheme to completion, while Mymensingh proceeded to take up a comprehensive project in instalments; progress was also made with work in Bhadreswar and Bhatpara, and schemes were prepared for other towns.

Conservancy. 195. A detailed sewerage scheme was approved for the town of Kurseong and Government agreed to make a grant of Rs. 50,000 and a loan of Rs. 30,000 towards its cost. The necessity and urgency of an up-to-date sewerage scheme for the town of Dacca is forcibly illustrated in the Magistrate's report, and arrangements are being made to start work on a project which has long been ready, but which has hitherto been kept in abeyance owing to financial exigencies. The total cost is 30 lakhs, of which Government has agreed to grant 25 lakhs, the balance being met by a Government loan.

Public Works. 196. The percentage of the outlay on public works to the total expenditure varied in the smaller towns from 1·6 in Champdani to 51·2 in Taki and in larger municipalities from 4·6 in Natore to 41·2 in Chandpur.

A fine building which will serve both as a town-hall and as the municipal office was in course of construction at Darjeeling, this addition to the buildings of the town being rendered possible by the munificent offer of Rs. 1,65,000 by His Highness the Maharaja of Cooch Behar.

Loans. 197. Altogether 39 municipalities were in debt to Government at the end of the year, their total liability amounting to nearly 43 lakhs. The largest outstanding liabilities were those of Howrah (Rs. 21,92,154), Darjeeling (Rs. 6,56,114), Dacca (Rs. 3,38,801), Chittagong (Rs. 1,42,400) and Narayanganj (Rs. 1,09,111). Three municipalities took loans during the year for water-works, *viz.*, Dacca (Rs. 1,00,000), Mymensingh (Rs. 70,000) and Uttarpara (Rs. 25,000). Kharar, Panihati and Faridpur liquidated their loans.

Closing balances. 198. The closing balances, which had fallen from Rs. 16,59,012 to Rs. 15,83,492 in 1916-17, rose to Rs. 16,84,672, and about one-third of the total number of municipalities closed the year with a balance exceeding one-quarter of the total expenditure. Five municipalities had closing balances of over a lakh, *viz.*, Dacca (Rs. 2,25,685), Howrah (Rs. 1,85,773), Midnapore (Rs. 1,70,521), Cossipore-Chitpur (Rs. 1,03,058), Maniktala (Rs. 1,01,614) and Darjeeling (Rs. 1,00,717). The large balances in the case of Midnapore and Dacca were due mainly to the receipt of a grant and loan, respectively, which Government gave for water-supply schemes, and which could not be fully expended during the year. The comparatively large balances standing to the credit of Cossipore-Chitpur and Maniktala are not excessive, in the opinion of the Commissioner, regard being had to their needs. No explanation has been furnished for the large balance in Darjeeling.

On the other hand, a number of municipalities failed to keep adequate working balances and in 16 cases, as against 9 in the previous year, they were insufficient to meet outstanding liabilities. Jessore with an ordinary

expenditure of Rs. 36,000 had a balance of Rs. 319 only, while Baduria with an expenditure of Rs. 5,000 closed the year with the exiguous sum of Rs. 8 in hand. The tendency to incur liabilities in excess of resources was most marked in the municipalities of Hooghly-Chinsura, Serampore, Pabna, Dinajpur and Barisal, the worst offender being Serampore, which had outstanding liabilities of Rs. 51,680, or nearly three-fourths of its current demand, against an actual balance of Rs. 5,619. This deplorable result is said to be due to lack of supervision over the municipal establishment.

Audit of accounts and embezzlements.

199. The accounts of most of the municipalities were audited during the year. Serious irregularities and embezzlements came to light in the municipalities of Burdwan, Hooghly-Chinsura and Serampore. The loss to the Burdwan Municipality so far as has been ascertained up to the present amounted to Rs. 3,850; the amount embezzled in Serampore and Hooghly-Chinsura is not reported. In Rangpur two municipal employees were convicted of embezzling municipal money, and a case of embezzlement of Rs. 1,600 was also detected in Rajpore. No case of embezzlement was reported in any of the other divisions.

Howrah.

200. The current demand on account of taxes in Howrah rose by nearly a lakh, and amounted to Rs. 10,97,631. The total demand (including arrears) amounted to Rs. 11,40,347, of which only Rs. 8,79,589, or 77·1 per cent. were collected during the year. This low percentage is due partly to the fact already referred to that a payment of over a lakh could not be credited to the municipal fund within the year, partly to the slow disposal of a large number of appeals against revision of assessment and partly to delay in the Assessment Department in dealing with petitions against wrong assessments and with lists of holdings not in existence. As a result of these latter two factors over a lakh was uncollected, and there was a large accumulation of outstanding taxes. The financial position of the municipality has not shown any appreciable improvement; normal receipts exceeded normal expenditure by Rs. 25,000, but expenditure was restricted largely in consequence of conditions imposed by the war and the prohibitive cost of materials, as well as by the obvious necessity of maintaining financial equilibrium; and there are many reforms of which the execution is precluded by the financial exigencies of the municipality. The water-works improvement scheme had to be postponed owing to want of funds and the high price of materials. No new drainage works involving capital expenditure could be taken up during the year and the canal scheme had to be postponed. The outlay on roads in the previous year, which was less than half of the amount estimated as necessary for their proper upkeep, was reduced by Rs. 3,000. The conservancy of the town was defective. The cleaning of latrines was admittedly unsatisfactory, while the absence of adequate machinery for the prompt removal of scrapings from drains, which are allowed to accumulate on the sides of the roads, is a well-founded cause of complaint. The expenditure on primary education was extremely small for a town of the size of Howrah, *viz.*, Rs. 10,665, or 2·6 per cent. of the ordinary municipal income. The License Department was reorganized during the year with satisfactory results and a consequent increase of over Rs. 14,000 in the collections. Another improvement was the reorganization of the Health Department. In recognition of the sound principle that the primary duty of a Health Officer is the prevention of disease, and not conservancy work, the Health Officer was placed in charge solely of matters connected with public health, while conservancy was handed over to the Municipal Engineer.

Administration.

201. The district of the 24-Parganas contains nearly one-fourth of the municipalities of the Presidency and its municipalities are typical of the whole number, for some are large suburban towns in which a standard of administration similar to that of Calcutta is required, others are progressive mill-towns, others are more like overgrown villages in which the conditions are rural rather than urban. Their administration shows steady improvement. An interesting and thoughtful review of the year's work is given by the District Magistrate, who writes: "On the whole, if allowance is made for the difficulties caused by the war, there has been an advance in the standard of municipal administration in most of the important municipalities. Maniktala, which a short time ago was a by word for party feeling and faction,

has settled down. Its drainage problem still remains unsolved and its sanitary condition, therefore, gives rise to much unfavourable comment. But, generally, the character of the administration has improved. Cossipore-Chitpur has had a fairly uneventful year. The financial position needs to be carefully watched, and the problems of adequate water-supply and proper drainage still await solution. Like Maniktala, Cossipore-Chitpur's problems are complicated by external conditions. Of the other suburban municipalities Garden Reach is the best run, and signs of a vigorous administration are visible. Tollygunge is in great financial difficulties, being in debt to the Calcutta Corporation for a whole year's water-rate. An effort is now being made to put matters right, but there is great lack of foresight and vigour in the administration. The South Suburban Municipality is surprisingly backward. Further south, Budge-Budge is embarking on a scheme of improved drainage which is much needed. The mill municipalities continue to prosper and the relations between the Indian and European Commissioners have been most friendly. The other riparian municipalities call for no remark, their poverty preventing them from embarking on any ambitious schemes.

"Most of the municipalities away from the Hooghly consist of groups of rural villages, and the administration generally is feeble. Usually there are many more miles of metalled roads than can be properly maintained and, save a latrine service of varying efficiency, almost none of the ordinary conveniences of municipal life are available. Drainage almost everywhere is bad, and in the few places where a drainage system has been introduced at a considerable cost the results are almost *nil*. Lighting is poor or non-existent. Unfortunately, too, the administration of many of these municipalities is in the hands of Commissioners who are generally non-resident, but who take a great deal of trouble to obtain posts, the duties of which they cannot discharge. In other cases the most influential local resident is the successful candidate for the post of Chairman and, having obtained it, leaves everything to the Vice-Chairman or the office staff, which in too many cases becomes the real local executive, with evil results."

In Nadia the District Magistrate points out that party spirit, which is so frequently decried as an obstacle to progress, is often of real service as the opposition presses for improvement of the administration. Berhampore is undertaking the improvement of its water-supply and drainage systems, but want of funds prevents appreciable progress in either direction. A recent inspection by the Examiner of Local Accounts shows that the financial position of Khulna has gone from bad to worse.

The Commissioner of Burdwan reports that the municipalities in his Division were fairly well managed with the exception of Burdwan, Hooghly-Chinsura, Serampore and Bansberia. The continued maladministration of Burdwan and Hooghly-Chinsura has since compelled Government to take the extreme step of ordering the supersession of the Municipal Commissioners. The administration of Serampore was characterized by the same grave defects as that of Burdwan and Hooghly-Chinsura. Lack of supervision led to the accumulation of heavy arrears of taxes, serious irregularities, embezzlement and excessive outstanding liabilities. The liabilities, as already mentioned, aggregated Rs. 51,680, or nearly three-fourths of the current demand, while the actual balance in hand amounted to Rs. 5,619. Bansberia is said to be the worst managed of the small municipalities, and the District Magistrate describes its administration as deplorable.

The Commissioner of Rajshahi gives a favourable account of the municipalities in his Division, which, with few exceptions, continued to do good work. The most notable exception is Rampore-Boalia, which, as in previous years, suffered from general feebleness and want of enterprise. Natore in the same district set an example which the head-quarters town might well follow, for, in spite of greater difficulties, it was well administered without friction. Darjeeling kept up its usual high standard of administration, and the Municipal Commissioners were conspicuous for a keen sense of public spirit and for the harmony with which they disposed of business.

In the Dacca Division Mymensingh has shown a progressive spirit, and increased taxation has enabled the Municipal Commissioners to take up important improvements. The other municipalities in the Mymensingh

District are unprogressive. Some of them show a strong tendency to evade their responsibilities, in particular by trying to shift the burden of maintaining municipal roads on to the District Board. There is little noteworthy to record regarding the municipalities in the Chittagong Division. Comilla has decided to substitute a rate on holdings for a tax on persons with a consequent increase of revenue, and the Municipal Commissioners have in view several schemes of improvement. In Noakhali the problems of the Commissioners were complicated by the possibility of the town being swept away by the sea.

Calcutta Municipality.

[Report on the Administration of the Calcutta Municipality for the year 1917-18. Statistics of British India, Part III—Local Funds.]

Introductory.

202. In spite of the depreciation of securities and the heavy loans which fell due, the financial position of the Corporation continued to improve. This was chiefly due to rigid economy necessitated by the fact that loans to the amount of 45½ lakhs fell due. It was arranged with the Bank of Bengal that they should exchange their holdings in these loans for new 5½ per cent. debentures. This arrangement set free a large amount of cash with which it is proposed to undertake a number of capital works in the current year.

Public Health.

203. There were no epidemics; the mortality from cholera, small-pox, measles, malaria, enteric and tuberculosis fell; and as in the previous year plague did not assume epidemic form. The birth-rate was 20·9 per thousand as in the previous year, while the death-rate fell from 24·7 to 23·8. The high rate of deaths among females continued and was 32·1 per mille, but the death-rate amongst males was only 19·18. The number of deaths amongst infants of one year and under was 239 per thousand births, as compared with 249 in the preceding year. It is reported that a third of these deaths were due to respiratory diseases, mainly as a consequence of the insufficiency of clothing amongst infants of the poorer classes.

Good work was done by the Corporation midwives. Altogether 1,126 babies were brought into the world by them and only 68 of them died before the 10th day. This gives a mortality of 60 per mille, as against the general infantile mortality of 80 per mille, during the first week of life. Regular visits were paid to the babies by the lady health visitors till they were 3 months old. The deaths amongst these infants represented 29 per mille, the corresponding rate of infantile mortality being 72 per mille for the whole city. The Chairman remarks :—

"The maternity work undertaken by the Health Department, though still on too small a scale to have any appreciable effect upon the mortality of the city, has shown most successful results, and its extension, which is being carried out as rapidly as practicable, should in time produce a substantial reduction of the infantile mortality which, though lower than last year, is still very high."

Elections.

204. The sixth general election of Ward Commissioners under the present Act was held on the 20th March 1918. There were 35,153 voters with 90,907 votes, as compared with 38,412 voters with 95,492 votes at the previous election. The decrease is attributed to the abolition of voting by proxy and to the failure of companies and firms to apply in time for the entry of the name of a representative in the election roll.

Revenue Funds.

205. The year opened with a balance of Rs. 42,91,492, and receipts amounted to Rs. 1,23,49,448 and payments to Rs. 1,10,88,037. The closing balance at the end of the year stood at Rs. 55,52,903. On the basis of assets and liabilities the income amounted to Rs. 1,23,18,132 and the expenditure to Rs. 1,12,20,812.

Loan Liability.

206. The outstanding liability of the Corporation on the 1st April 1917 was Rs. 4,75,17,000. The charge on account of interest and sinking fund contribution on this debt amounts to Rs. 31,82,980.

Assessment Department.

207. At the end of the year the assessed annual valuation of the city was Rs. 4,80,98,516, as compared with Rs. 4,64,44,716, at the end of 1916-17. The increase was due to general revision and to intermediate valuations on account of new buildings.

Survey Department.

208. Plans and estimates were prepared in connection with 122 projects involving an area of 174 bighas valued at 43 lakhs. The acquisitions during the year including setbacks covered an area of 4 bighas and involved an expenditure of Rs. 1,53,397.

Collection Department.

209. The total demand was Rs. 39,08,445, of which Rs. 2,59,294 was remitted or cancelled as irrecoverable, and the amount collected was Rs. 85,75,758. The percentage of collections calculated on the gross current demand, less the amount pending with the Assessor, was 97·56 and calculated on the net demand reached the record figure of 99·88.

Bustee Department.

210. War conditions imposed restrictions on work, and consequently bustee improvements were confined to insanitary localities which needed urgent attention. In 45 cases the improvements prescribed were completed; huts were removed from 27 bighas of bustee land, nearly a mile and a quarter of bustee roads was opened out and 14 private streets were improved.

Water-supply.

211. The average quantity of water supplied during the year amounted to over 62½ (36 filtered and 26½ unfiltered) million gallons per day and gave a total average consumption for the city of 39 gallons of filtered and 29½ gallons of unfiltered water per head of population.

Drainage.

212. No drainage scheme of any magnitude was undertaken during the year. The problem of the future disposal of the drainage of Calcutta arising out of the gradual silting up of the Bidyadhari appears to have been solved temporarily by the action of a spill area in the Salt Lakes to scour out the bed of the river. The silting up has now decreased at every point and there is reason to hope that it will be possible to utilise the Bidyadhari for the discharge of the drainage of the city for some years to come.

Lighting Department.

213. The efficiency of the street-lighting of the city was well maintained during the year. The quantity of coal supplied to the Gas Company was reduced by the Coal Controller in December 1917, with consequent restriction in street-lighting. Nearly one-third of the lamps were extinguished, but no serious inconvenience is reported to have resulted.

Roads.

214. The total amount spent on the maintenance of roads was Rs. 7,66,000 as against Rs. 8,62,000 of the previous year. The area of road surface repaired was considerably greater, but the quantity of new stone metal used was less, and this, together with a slight reduction in the price paid for the metal, accounts for the decrease in expenditure. The success of asphaltum pavement for streets carrying anything but heavy bullock-cart traffic is now said to be assured. Experiments have been made with various kinds of pavements to find out the appropriate surfacing for roads carrying heavy bullock-cart traffic, and the Chairman is of opinion that the experiments conducted point to stone-surfacing as the only pavement which is likely to be successful.

Conservancy.

215. The total expenditure on street-cleaning, incinerators and the municipal railway amounted to Rs. 10,40,000, as against Rs. 10,86,000 in the previous year. The motor-lorries used for the removal of carcasses of animals continued to do excellent work. The permanent way and locomotives of the refuse railway are reported to be old and worn-out. It has been in contemplation to purchase motor-lorries to replace the railway for some time, and now that the war is over it should be possible to give effect to this scheme.

Markets.

216. The total receipts from the municipal markets showed an increase from Rs. 5,93,713 to Rs. 7,45,802. The bulk of the increase was contributed by the Sir Stuart Hogg Market. The College Street Market which was opened in March 1917 yielded an income of Rs. 53,398. Various improvements were effected in private markets on the requisition of the Health Department.

Food Inspection.

217. The law relating to food and drugs was amended during the year by the Calcutta Municipal Amendment Act, 1917. Under the new law places in which ghee is manufactured and stored, as also ghee in course of transit, have been placed under control. Over 400 maunds of adulterated ghee were seized and condemned. A much smaller percentage of ghee is now found to be adulterated and there appears on the whole to be an improvement in the quality of ghee sold. The number of samples of food-stuffs of all kinds analysed during the year was 2,075, as against 1,774; of these 622 were found to be adulterated. The prosecutions instituted during the year

aggregated 2,364 as against 1,657 in the previous year, and the amount of unwholesome food-stuffs destroyed was 3,276 maunds.

Municipal Magistrate's Court.

218. The number of cases instituted was exactly the same (20,269) as in the preceding year, but the number disposed of rose from 19,072 to 20,176. The fines imposed amounted to Rs. 1,16,624, as compared with Rs. 1,03,182 in the previous year.

Hackney Carriage Department.

219. Although there was a slight increase in the total number of hackney carriages from 3,077 to 3,123, a further decrease occurred in the number of third class carriages, while the number of palanquins registered came down to 83. Prosecutions were instituted in only 1,601 cases, as against 2,656 in the preceding year, and the receipts from all sources fell from Rs. 33,727 to Rs. 28,553.

Education.

220. The total amount of aid given to educational institutions rose from Rs. 80,285 to Rs. 85,525. The grants to primary and technical schools amounted to Rs. 66,057, while the remission of rates allowed to certain schools and colleges conducted as charitable institutions represented a sum of Rs. 17,068.

Calcutta Improvement Trust.

[Report on the Operations of the Calcutta Improvement Trust for 1917-18.]

Power of the Trust to acquire surplus lands.

221. During the latter half of the year the civil suit regarding the Trust's power to acquire lands lying outside road alignments was decided in favour of the Trust by a Full Bench of the High Court and as a result of this decision the Land Acquisition Collector was able to proceed with the acquisition of land within the area of improvement schemes. The legal obstacle which had prevented Government from sanctioning any further improvement schemes was removed.

The following improvement schemes were sanctioned by Government:—

I-C.—Ismail Madan Lane Area.

VII.—Chitpur Spur.

VIII.—Park Street Extension.

VIII-A.—Outer Park Street.

X.—Ripon Street Triangle.
XI.—St. James' Square.
XIII.—Marcus Square Extension.
} Squares.

Road construction in two improvement schemes, *viz.*, II.—Shambazar Bridge Road and II-A.—Cornwallis Street Widening, were completed. Land acquisition in schemes I-A.—Surtibagan North and VII.—Central Avenue (Machuabazar Street to Beadon Street) and engineering works in the undermentioned schemes were in progress :—

I.—Surtibagan.

IV.—Russa Road Widening.

IV-A.—Russa Road Extension.

V.—Bhowanipore.

VII-A.—Central Avenue (Halliday Street Widening).

VII-B.— ,, ,, (Colootola Street to Bowbazar Street).

Only one improvement scheme (XIV-A.—Dhaniabagan Road Extension) was published by the Trust during the year. The Calcutta Corporation who recommended the scheme, having subsequently proposed to execute it themselves, the Trust had to withdraw from it.

Projected Public Streets.

222. During the year under report plans of 9 proposed streets were published by the Trust in addition to those published in previous years and

14 of these alignments were sanctioned by Government. These are mentioned below:—

Published Alignments—

XXIII.—Outer Circular Road.
XXIV.—Linton Street Area.
XXV.—Gorachand Area.
XXVI.—Entally Park Avenue.
XXVII.—Tiljala Area.
XXVIII.—Howrah Bridge Approach.
XXIX.—Strand Road North Widening.
XXX.—Diamond Harbour Road Widening.
XXXII.—Boitakhana Road Extension.

Sanctioned Alignments—

I.—Central Avenue (Beadon Street to Shambazar Street).
II.—Dhurrumtollah Street Extension.
III.—Gobra Main Road.
IV.—Portuguese Church Diagonal.
VI.—Ahiritola Diagonal.
VIII.—Ahiritola Street Widening.
IX.—Central Avenue (Shambazar Street to Galiff Street).
XI.—Dhurrumtollah Relief Road.
XII.—Ballygunge Main Road.
XIII.—Jugannath Ghat Road.
XVI.—Amherst Street Extension.
XIX.—Taltola Diagonal.
XX.—Shambazar Street Widening.
XXI.—Ahiritola Diagonal Extension.

Extension of the operations of the Trust to Suburban Municipalities.

223. Little progress has been made with the scheme for the extension of the operations of the Trust to the Maniktola Municipality. The problem of the improvement of Barabazar has been carefully considered and as a result of enquiries which have been made the Trust have come to the conclusion that improvement schemes can be carried out in Barabazar without incurring prohibitive expenditure. The proposal to extend the operations of the Trust to Howrah has been welcomed by the Municipal Commissioners of Howrah and Government is considering the introduction of legislation to enable its improvement to be taken up.

Finance.

224. The expenditure under the Capital Account was Rs. 38·5 lakhs, of which 27 lakhs was spent on land acquisition, mostly during the latter half of the year. The total receipts amounted to Rs. 29·58 lakhs, the deficit being met by the transfer of Rs. 8·92 lakhs from the Revenue Account. The Revenue Account opened with a balance of Rs. 108·29 lakhs, and the total receipts from all sources amounted to Rs. 27·28 lakhs about half of which was due to special taxation. The total expenditure was Rs. 4·9 lakhs. The year closed with a surplus balance of Rs. 130·67 lakhs (including 8·92 and 58·94 lakhs transferred to the Capital Account in this year and in the preceding years).

District Boards.

[The Reports from the Commissioners of Divisions on the Working of District Boards in Bengal during the year 1917-18, Part VIII—Local Funds.]

District Boards.

225. During the year under review five District Boards, or one-fifth of the total number, were given the privilege of electing a Chairman from among the non-official members. The districts in question were Burdwan, the 24-Parganas, Jessore, Bakarganj and Murshidabad. The Murshidabad Board elected the non-official Chairman appointed by Government in the previous year, who consequently held office throughout the year. In the other four District Boards the Chairmen were elected two and three months, respectively, before the year came to a close.

Enquiry made after the close of the year showed that the amount of touring in the interior done by some of the non-official Chairmen was small. The Chairman of the Murshidabad District Board spent only nine days on tour during the year, while the Chairmen of the Boards of the 24-Parganas and Jessore toured only six and five days, respectively, in the six months ending in June 1918. It was, therefore, necessary to remind them that widely extended travelling is essential if the work of the Boards is to be satisfactorily carried out.

Local Boards.

226. The elective system was introduced in the Local Boards of the Noakhali district. General elections were held in six districts: they failed in 13 thanas owing to the non-attendance of the prescribed number (10 per cent.) of registered voters. One Local Board election failed because the number of voters presenting themselves before the presiding officer was far in excess of the number whose votes it was humanly possible for him to record in one day, and he broke down under the strain. The result of this election has drawn attention to defects in the existing rules, under which the election has to be held at the headquarters of each thana under one presiding officer at one sitting. A revision of the rules has been undertaken so as to provide additional polling centres and polling officers and so obviate the possibility of such a failure.

Union Committees.

227. The number of Union Committees actually at work at the end of the year increased from 156 to 174 (86 in West Bengal and 88 in East Bengal) with a population of over one million and a half. In addition to these, 53 Union Committees, of which 47 were in Rangpur, were sanctioned but had not been constituted before the end of the year. The District Board of Murshidabad resolved to form 20 new Union Committees and a scheme was prepared for the establishment of Union Committees throughout the Sadar subdivision of Howrah as well as in the Uluberia subdivision. The elective system has gradually been extended and will be introduced in all the existing Union Committees on the expiry of the term of office of the present members.

Income.

228. The total income of Union Committees (excluding opening balances) increased from Rs. 1,68,505 to Rs. 2,00,043, of which Rs. 1,12,954 was contributed by District Boards. The number of Committees imposing Union rates rose from 67 to 86 and the amount realised from Rs. 39,801 to Rs. 52,093. In the Dacca district alone, where the Committees have considerable vitality and enterprise, 14 more Unions taxed themselves, and the receipts were doubled. In this district all but three raise some income by self-taxation and the Union rates now represent nearly a third of their income.

In Birbhum, again, Union rates are levied in all the Unions and account for two-thirds of their total receipts: one indeed (Paikar) obtained nearly its whole income in this way and was entirely independent of the assistance of the District Board. The Committees in Rangpur, though not imposing taxation under the Local Self-Government Act, succeeded in raising considerable local contributions to supplement the grants received from the District Board. On the other hand, there was a noticeable lack of initiative in this respect in Bankura, Bogra, Tippera and the 24-Parganas, where none of the Committees impose Union rates.

Expenditure.

229. Expenditure on roads amounted to Rs. 86,224, while sanitation and water-supply claimed about one-third of the total expenditure. Out of the total amount of Rs. 3,944 spent on education, seven Union Committees in Jessore spent Rs. 2,229, the balance being shared between a Committee in Birbhum, two in Murshidabad and 14 in Dacca. The Union Committees in the 24-Parganas and a few of those in Birbhum, Jessore and Dacca devoted part of their funds to dispensaries, while those in Birbhum, Hooghly, Murshidabad, Dacca, Noakhali, Rangpur and Bogra spent a considerable share of their income on water-supply.

Balances.

230. Altogether 23 Union Committees disposed of the whole of their funds and 15 were left with balances of Rs. 9 or less. The Rampur Hât Union spent more than Rs. 7,000 out of its income of Rs. 8,668, Manikganj over Rs. 6,000, Bolpur over Rs. 4,000, eight unions over Rs. 3,000 each and six others over Rs. 2,000 each. The Rajbari Union spent Rs. 4,690

out of its income of Rs. 10,448, which included a grant of Rs. 2,000 from Government for water-works : a large part of the balance is presumably earmarked for expenditure on these works. The Unions of the 24-Parganas, whose incomes consist almost entirely of contributions from the District Board, spent nearly the whole of their receipts. On the other hand, the three Unions established in Bankura with a paltry income of Rs. 349 closed the year with a balance of Rs. 138, those of Nadia and Bogra retained balances almost equal to their expenditure, while the balances of those in Midnapore and Hooghly amounted very nearly to half their expenditure. One in Rangpur, which received the large contribution of Rs. 2,240 from the District Board and raised Rs. 46 from other sources, spent only Rs. 853, one in Faridpur spent only Re. 1 out of its income of Rs. 316, and another in Bankura never utilised its grant of Rs. 100 made by the Board for fear that it should be required to supplement it by local contributions. It consequently opened and closed the year with a balance of Rs. 100.

General remarks.

231. Although the increase in the number of Union Committees in the year under review has not been quite so rapid as in the previous year and the reports of the public spirit displayed by them are not always favourable, there is good reason for looking forward to steady progress and improvement in this branch of local self-government.

Reports from Birbhum and Hooghly testify to the continued good work done by the Union Committees of these districts. In Birbhum, where the receipts from taxation have risen from Rs. 450 to Rs. 15,000 in 5 years, six new Unions being constituted in that period, their expanding resources have enabled the Committees to appoint a separate overseer for the supervision of works undertaken by them.

In Dacca the Committees are showing commendable zeal and enthusiasm, and evidence is not wanting of their capacity to benefit by each other's experience. In this district it is the custom for the Chairmen and members to meet with the chaukidari panchayats at an annual Conference held at the Dacca Government Farm, where questions of village administration are debated and the work carried on at the farm is studied with keen interest.

The other side of the picture is presented in the report of the Chairman of the Bankura District Board, who found the working of the Union Committees most disappointing. "Neither threat nor persuasion," he remarks, "has availed to arouse the slumbering instinct of self-help and patriotism." The non-official Chairman of the Burdwan District Board complains that the majority of the Union Committees want to have doles from the District Board without exerting themselves. In other districts also the aversion to local taxation is noticeable. At the same time, Committees which have failed to introduce local taxation have not always been marked by lack of vitality or initiative : the people of Rangpur, though they do not assess themselves, raise considerable sums from voluntary contributions. Many Committees, moreover, are of recent creation, and it is hoped that, with greater experience and with an expansion of their work, the advantages of self-taxation will be more widely recognized. An encouraging instance of the readiness of villagers to manage and pay for village needs is furnished by the existence of 89 informal Committees in the Rangpur district, which spent Rs. 27,640 on roads, Rs. 7,854 on wells and Rs. 3,959 on other heads.

District Board receipts.

232. The total receipts from all sources (excluding opening balances) increased from Rs. 1,06,09,964 to Rs. 1,10,22,117 and the total disbursements decreased from Rs. 1,10,04,449 to Rs. 1,08,12,415. The fluctuations cannot be assigned to any general causes. The largest decreases were Rs. 1,13,000 under local rates, a result due mainly to bad collections, Rs. 33,000 under police, Rs. 52,000 under miscellaneous and Rs. 12,000 under railways. On the other hand, receipts from education rose from Rs. 10,68,263 to Rs. 12,53,689, owing to an increase in the educational grants made by Government; receipts from medical increased from Rs. 90,482 to Rs. 1,44,201, mainly on account of larger contributions from private sources ; and receipts from civil works rose from Rs. 10,37,235 to Rs. 12,37,066, chiefly as a result of larger contributions from Government. The incidence of taxation varied from 2 annas per head in the Dacca Division to 3¼ annas

per head in the Burdwan Division, and averaged 2½ annas for the whole Presidency.

Expenditure.

233. In contrast with the previous three years when expenditure exceeded current income by 5½, 7½ and 2⅓ lakhs, respectively, the expenditure in the year under review exceeded current income by less than Rs. 5,000. Many District Boards have incurred additional recurring expenditure which has absorbed the greater part of the enhanced income due to the transfer by Government of the receipts from the public works cess, and they have therefore little or nothing to spend on original works of any magnitude. In Bankura, for instance, a district with small resources, an inelastic income and growing needs, where the whole of the increased income is absorbed by recurring expenditure, the Board spent less on original works than before it received the public works cess receipts. Others, however, still have large surpluses, which were available for capital expenditure, but which remained unspent owing to the restrictions placed on the construction of new works by war conditions, and more particularly the prohibitive price of materials and the difficulty of obtaining them consequent on the dislocation of railway traffic. The year closed with an aggregate balance of 20 lakhs or approximately one-fifth of the total expenditure.

Education.

234. The expenditure on education amounted to approximately 25 lakhs, of which nearly half consisted of Government grants. The total number of upper and lower primary schools maintained and aided by District Boards rose from 34,020 to 35,278, of which 27,863 were boys' schools and 7,415 girls' schools : those actually maintained by the Boards numbered 2,842. Village opinion still seems to consider the education of girls a luxury rather than a necessity, and the progress of female education is consequently slow, there being an addition of only 6,700 in the number of girls attending schools maintained and aided by the Boards. The education of small and backward communities received some attention. The District Boards of Birbhum and Midnapore helped in the education of the Santhals, while in Chittagong two special schools for the Arakanese Maghs were maintained at Cox's Bazar and Ramoo. In Birbhum a feature of the year's work was the starting of night schools, at which free education was given to the children of labourers, cultivators and artizans.

Medical.

235. There was an increase of nearly Rs. 80,000 in the provision of medical relief. In view of the inadequacy of medical relief available in rural areas, Government urged the Boards to prepare programmes for the establishment of additional dispensaries, so that in course of time there might be a network of dispensaries in each district and every village might be within reach of one. Altogether 23 new dispensaries were established in the year under review, and the Governor in Council is pleased to observe that almost all the District Boards outside the Chittagong Division have adopted programmes of extension. Jessore, Howrah and Dacca have decided to introduce a system of endowed medical aid for rural areas, under which localities, where medical aid is not procurable and there is not sufficient local support to justify the establishment of a dispensary, are selected and medical men induced to settle and practise in them by the grant of a subsidy. Four such centres were selected in Howrah and ten in Jessore. The experiment was tried elsewhere some years ago but proved a failure ; and it remains to be seen with what success it will now meet. The Rajshahi District Board appointed a supernumerary doctor specially to treat cases of malaria in primary schools in the vicinity of the town of Rampur-Boalia. The experiment having proved a success, steps are being taken to make similar arrangements for schools in other centres.

Sanitation.

236. There was an increased outlay of over Rs. 23,000 on sanitary measures, a large part of the expenditure being incurred, as in previous years, on village works carried out through the agency of Local Boards and Union Committees. The sanitary staff of some of the Boards was usefully employed in delivering lantern lectures in villages and instructing villagers in the main principles of hygiene and their application. It is interesting to note, as an instance of growing interest in questions of public health, that the non-official Chairman of the District Board of Jessore composed and distributed a leaflet on cholera and malaria, which was approved by the Sanitary Commissioner.

It has been felt for some time that without an adequate public health organization under each District Board, the problems of public health and the prevention of disease in rural areas cannot receive proper attention. The fact that none of the District Boards in the Chittagong Division has appointed a Sanitary Inspector, as required by the Local Self-Government Act, shows how little this important responsibility is realized by some Boards. Orders have recently issued requiring each District Board to appoint a properly qualified District Health Officer, and an officer of this class has already been appointed in Burdwan. The Chittagong District Board resolved during the year to appoint one, and the question of making a similar appointment has been taken up by the Midnapore District Board.

Vaccination.

237. The decision of the District Boards of Burdwan and Chittagong to introduce free vaccination throughout those districts—a measure which involves the entertainment of a considerable staff—is also an encouraging sign of growing interest in the campaign against disease. A system of free vaccination which was adopted in the Faridpur district as an experimental measure was found to be unsatisfactory and was discontinued during the year. The results of an experiment in the Sadar subdivision of the Bakarganj district, however, proved satisfactory and the Board decided that the scheme should be extended to the three remaining subdivisions of the district.

Civil works.

238. The prevalence of war conditions is mainly responsible for the decrease of Rs. 1,73,540 under this head, which includes water-supply and drainage. The outlay on original works on buildings fell by nearly half-a-lakh and that on communications by over three lakhs, but on the other hand, 1½ lakh more was spent on the improvement of the water-supply in rural areas. Work was especially hampered by the difficulties of railway transport, which often rendered it impossible to obtain either metal for the roads or coal for burning bricks. As was to be expected under these conditions, there were large lapses, amounting in Noakhali to nearly one-third of the total allotment for civil works. The District Boards of Burdwan, Hooghly and Nadia allowed over 20 per cent. of their allotments to lapse, and five other Boards, viz., Midnapore, 24-Parganas, Dacca, Bogra and Chittagong had lapses of over 10 per cent. Taking the figures for the province as a whole, the proportion of lapses rose from 9 to 11 per cent.

Water-supply.

239. Expenditure on the improvement of the sources of water-supply showed a satisfactory increase of 1½ lakh and accounted for nearly one-quarter of the net public works cess receipts. Midnapore, which was noticed last year as having spent only 2·2 per cent. of its public works cess receipts on water-supply, increased its outlay to 34·4 per cent. Nadia and Dacca spent over 43 per cent. of their receipts from the cess, while five other Boards spent over 30 per cent. On the other hand, expenditure by the District Board of Chittagong was only one-third of that of the previous year, and the explanation of the reduced expenditure given by the Chairman is not convincing. In Howrah there was a decrease, which was due to the fact that the Board had to give up its programme of excavating tanks in the open country so as to avoid risks of pollution. The result was that many of the tanks were not used except by a few persons living in the vicinity, and the Board realizing its mistake has had to adopt another scheme.

Arboriculture.

240. There was an increase of Rs. 3,442 in the expenditure under this head. Nearly half of the provincial expenditure was incurred in the Burdwan Division, where the District Boards pay more attention to the planting and maintenance of roadside trees than those elsewhere. The Asansol Local Board alone spent more than any other division in the Presidency. The District Boards of Jessore, Dacca and Bakarganj appear to have little interest in this matter, the first Board spending only Re. 1 and the latter two nothing on their trees.

Veterinary charges.

241. Expenditure under this head, which includes charges on account of veterinary dispensaries, contributions towards the pay of veterinary assistants and scholarships tenable at the Belgachia College, increased from Rs. 88,716 to Rs. 1,00,513. Jalpaiguri shows the largest expenditure, mainly owing to the construction of a veterinary hospital and dispensary, which is nearing completion. The veterinary assistants continued to do useful work

on the outbreak of epidemics, and their work appears to have met with growing appreciation.

Closing balances.

242. Five years have now passed since the public works cess was made over by Government to the District Boards. At first the District Boards, for want of prepared programmes and schemes, were unable to spend the whole of the large sums placed at their disposal aggregating 29 lakhs: the receipts from this source have since risen to over 32 lakhs. Large balances accumulated which have been gradually reduced; but owing largely to the dislocation of railway goods traffic and the consequent difficulty of obtaining materials, this process was suspended during the year under review and the actual balance remained practically the same. Some District Boards, it is true, have cleared off the accumulations, and in four districts viz., Dacca, Faridpur, Bakarganj and Rangpur, the balance is now below the minimum working balance necessary. Rangpur, with an ordinary expenditure of over five lakhs, closed the year with an actual balance of Rs. 5,110 against the prescribed minimum of Rs. 19,787. On the other hand, the District Boards of Burdwan, Noakhali and Tippera retained disproportionately large balances (Rs. 3,67,566, Rs. 1,15,000 and Rs. 1,55,864, respectively), approximating in the first two cases to half or more of the current expenditure and in the third case to over 15 times the minimum working balance. Other District Boards with a closing balance of over one lakh are Mymensingh, Midnapore and the 24-Parganas.

The suspension of works due to war conditions is the explanation generally given for the accumulation of balances, but in Midnapore, even after allowing for the lapse under civil works, the result is not satisfactory, and in Mymensingh the balance increased by nearly six thousand. The explanation is also inadequate in the case of Tippera, where the lapse under civil works represented only Rs. 19,000. For Burdwan a somewhat different explanation is given, *viz.*, an underestimate of one lakh in the cess receipts, which depend on the profits and royalties from collieries and are, therefore, difficult to estimate properly, and the incompetence of the Assistant Engineer of the Asansol Local Board which resulted in a saving of 1½ lakh allotted for civil works. As a contrast to this may be mentioned the Bakarganj District Board, which, with an ordinary expenditure of over Rs. six lakhs, had a balance of only Rs. 42,000, owing to the expeditious way in which the District Engineer and the District Board office checked and passed the bills for works.

Marine Department.

(1) Annual Report of the Port Officer, Calcutta, 1917-18.
(2) Ditto ditto Chittagong, 1917-18.
(3) Annual Report on Shipping Offices in Bengal, 1917-18.
(4) Annual Report of the Health Officer of the Port of Calcutta, 1917.
(5) Ditto ditto Chittagong, 1917.
(6) Administration Report of the Agent for Government Consignments, 1917-18.
(7) Annual Report of the Bengal Smoke Nuisances Commission, 1917-18.
(8) Administration Report of the Port Commissioners, Calcutta, 1917-18.
(9) Ditto on the Howrah Bridge, 1917-18.
(10) Ditto of the Port Commissioners, Chittagong, 1917-18.
(11) Annual Report of the Bengal Steam-Boiler Commission, 1917-18.

PORT OF CALCUTTA.

Bengal Pilot Service.

243. The number of Pilots including Leadsmen Apprentices in the cadre of the Bengal Pilot Service was 60. Two Pilots were permitted to proceed on active service. In all thirteen Pilots and four Leadsmen Apprentices have proceeded on active service since the commencement of the war.

One Licensed Branch Pilot retired from service. He was the last of the Licensed Pilots.

As in the past year, the difficulty of recruitment of Leadsmen Apprentices has continued, and although endeavours were made to obtain recruits from England and from the merchant service in the East, these endeavours proved unsuccessful. There were consequently no recruits during the year. This Government, after a careful consideration of the circumstances, have

placed certain proposals before the Government of India with a view to overcome the deficiency in the number of Leadsmen in the Pilot Service at the present time. This scheme is still under consideration. Meanwhile, as a temporary measure, sanction was accorded to the appointment of outside candidates from the mercantile marine to the posts of junior officers of the two Pilot vessels. This sanction was accorded to enable the Leadsmen Apprentices to be relieved of their duties as junior officers of the Pilot vessels and to be placed on the running list, with a view to study the conditions of the river Hooghly.

The earnings of Pilots and Leadsmen Apprentices were greatly affected as the result of the war, and as a compensatory measure a bonus of 33 per cent. on their pay was granted to Leadsmen Apprentices with effect from 1st April 1917 for the period of the war and six months afterwards. The case of the Pilots was still under consideration.

Vessels piloted. 244. The number of vessels piloted inwards was 899 with a gross tonnage of 3,441,569, and outwards 898 with a gross tonnage of 3,420,131, against 1,119 and 1,125 vessels with a gross tonnage of 4,513,255 and 4,549,737 respectively during the previous year. Vessels drawing over 21 feet piloted inwards and outwards were 299 and 544, against 304 and 738 vessels in the past year.

Pilotage Receipts. 245. The receipts from pilotage fees amounted to Rs. 8,63,709, against Rs. 10,73,967 and Rs. 11,06,117 in the two previous years. The decrease in receipts is attributable solely to the war.

Casualties to vessels. 246. There were 12 cases of grounding against 18 in the preceding year. No damage resulted. In two instances the Pilots were found to be guilty of error of judgment. There was one case of collision as against two collisions in the preceding year, and in another case a vessel fouled the centre Saugor Flat Buoy. In both cases damage resulted. In the first case the Pilot was not held to blame, but in the second case the Pilot was found guilty of negligence in not keeping a proper look-out and was suitably dealt with.

Courts of Enquiry. 247. Three cases of casualties to vessels, *viz.*, two affecting sea-going vessels and one affecting an inland steam-vessel, were referred to special Courts of Enquiry.

Examinations. 248. Out of a total of 69 candidates, 28 passed the examinations for the grant of Colonial and Home Trade Certificates of Competency as Master, Mate, Engineer or Engine-driver of a sea-going vessel, and 94 out of 413 candidates passed the examinations for the grant of certificates of competency as Master, Serang or Engine-driver of an inland steam-vessel. There were 229 candidates for certificates of competency as 2nd Class Master, Serang or Engine-driver of an inland steam-vessel plying in Mesopotamian waters, of whom 113 passed.

PORT OF CHITTAGONG

Arrival and departure of vessels. 249. Vessels numbering 600 (inclusive of 437 inland steamers) with a gross tonnage of 312,851 entered and 602 vessels (inclusive of 439 inland steamers) with a gross tonnage of 313,068 left the port, as against 774 vessels (including 547 inland steamers) and 776 vessels (including 547 inland steamers) representing a gross tonnage of 529,517 and 525,423, respectively, in the previous year.

Casualties to vessels. 250. There were two cases of accidents to vessels. In one case a brig sank and in another a cargo-boat was totally lost.

Examinations. 251. Candidates for certificates of competency as Serang, 1st or 2nd Class Engine-driver of an inland steam-vessel numbered 72, of whom 33 passed.

SHIPPING OFFICES, CALCUTTA AND KIDDERPORE.

Finance. 252. The receipts of the shipping offices amounted to Rs. 76,929 and the expenditure to Rs. 58,855, against Rs. 94,074 and Rs. 69,238, respectively, in the preceding year.

253. The number of seamen shipped and discharged was :— **Seamen shipped and discharged.**

Articles.	1916-17.	1917-18.	Increase.	Decrease.
Shipped—				
European	1,300	954	...	346
Indian	37,198	34,021	...	3,177
Total ...	38,498	34,975	...	3,523
Discharged—				
European	1,166	1,499	333	...
Indian	30,665	23,730	...	6,935
Total ...	31,831	25,229	333	6,935

During the year the number of Anglo-Indians shipped on European Articles was 40 and that on Indian Articles 277 as compared with 40 on European and 363 on Indian Articles in the previous year.

254. The total number of seamen repatriated during the year was 55, of whom 29 were repatriated owing to illness, 7 on termination of agreement, 4 on account of imprisonment, 2 on account of injury, 7 by mutual consent, 1 on account of insanity and 5 on account of venereal disease. **Repatriation of distressed seamen.**

CHITTAGONG SHIPPING OFFICE.

255. The receipts of the Chittagong Shipping office amounted to Rs. 665 and the expenditure to Rs. 677, against Rs. 718 and Rs. 923 respectively in the previous year. **Finance.**

The number of seamen shipped and discharged was 169 and 579, against 150 and 507 respectively in the past year.

HEALTH OF THE PORT OF CALCUTTA.

256. The number of inward and outward vessels inspected by the Health Officer was 478 and 581, against 454 and 755, respectively in 1916. **Inspection of vessels.**

The number of crew hands and passengers passed or rejected was :—

		Passed.	Rejected.
Outward bound vessels ...	Crew hands ...	36,829	25
	Passengers ...	12,092	15
Inward bound vessels ...	Crew hands ...	29,723	...
	Passengers ...	10,377	...

257. The number of European seamen admitted into hospitals was 264 of whom 5 died, against 388 admissions and 9 deaths in 1916. **Health of seamen.**

There were 67 cases of venereal diseases, against the same number in 1916. The number of deaths at sea was 6, against 8 in the previous year. The number of deaths among Asiatic seamen was 115 or 4·44, against 133 or 5·14 per mille in 1916. There were 28 deaths from cholera, 27 from drowning and 16 from accidents.

258. One case of small-pox was reported to have occurred on a sea-going vessel and a suspected case was reported from a Government steamer. In both the cases the vessels were thoroughly disinfected and fumigated and the patients removed to Campbell Medical Hospital. Two cases of cholera were reported from a sea-going vessel and 98 cases of measles from an emigrant ship. There was one fatal case of beri-beri on board the SS. "Gregory Apcar". The vessel was properly disinfected. A suspected case of yellow fever was reported from a sea-going vessel which on examination turned out to be a case of dengue. **Infectious diseases.**

HEALTH OF THE PORT OF CHITTAGONG.

Infectious diseases.

259. There was no case of any infectious disease either on incoming or outgoing vessels or any vessel lying in port. There was an outbreak of beriberi on board the SS. "Roggerocen".

Inspections.

260. The number of vessels inspected by the Port Health Officer was 15, against 34 in 1916.

AGENCY FOR GOVERNMENT CONSIGNMENTS.

Finance.

261. The total receipts of the agency were Rs. 9,75,594 and the expenditure was Rs. 8,93,382.

Tonnage.

262. The tonnage dealt with was :—

Packages	...	...	...	1,040,898 and
Fire-bricks	...	...	...	225,874
Tons	...	...	...	57,180

The total value of freight bills passed by the Agency was Rs. 6,63,305.

BENGAL SMOKE NUISANCES COMMISSION.

Inspections and observations.

263. The number of observations taken of smoke emission and the number of factories visited, for the purpose of inspection of power plant, instruction of firemen and testing of fuel appliances, were 10,044 and 5,375, against 10,399 and 4,936 in the preceding year.

The number of complaints received from the public was 53, against 42 during the previous year, and the number of reports made to owners of factories, steamships, locomotives, etc., for departmental action was 1,200.

The average of the observed emission of objectionable smoke in terms of scale 6 was 1·29 minutes in the hour, against the average of 1·31 in the previous year. The progress in this direction, as compared above, may appear to be trifling; but in reality the results are the best on record since the commencement of the work of the Commission in April 1906. The conditions arising from the war, the control of the quality and quantity of fuel available, the shortage of supplies and the necessity for interfering as little as possible with factories engaged on war requirements have demanded great discretion and tact on the part of the Commission in dealing with the question of excessive emission of smoke.

Prosecutions under the Act.

264. Statutory warnings served and prosecutions undertaken were 60 and 36, against 52 and 29 respectively during the preceding year.

Examination of stokers.

265. One of the most gratifying features of the year's operation is the large increase in the number of men who passed the voluntary examination of skilled stokers, *viz.*, 33, against 2 in the previous year. By the employment of qualified stokers, not only was the work of the Commission lightened, but a considerable saving in the consumption of coal was effected, while at the same time the health of the public was ensured. The majority of the candidates for examination came from factories controlled by Indian owners; and it was hoped that, when the great advantage to be derived from the employment of trained men was more widely appreciated, there would be a steadily increasing demand for their service.

Plans for 34 furnaces were approved, altered and examined, of these 21 installations were actually working with good results in the saving of fuel and in corresponding reduction of smoke emission and an increase in outturn. As this was the first complete year in which the Commission had been able to exercise control in this direction, the result was very satisfactory.

In spite of war conditions and the difficulty in obtaining material, the use of gas and electricity for the purposes of generating heat and power steadily increased.

HOWRAH BRIDGE.

266. On the 31st March 1917, there was a deficit balance of Rs. 3,19,033 on Revenue Account. The receipts of the bridge during the year amounted to Rs. 3,43,284, against Rs. 2,50,546 in the previous year. The total expenditure was Rs. 4,27,195, including Rs. 1,41,492 expended on renewals to the bridge structure and repairs to the ferry landing stage at Howrah. In 1916-17 the total expenditure was Rs. 4,51,455, inclusive of an abnormal expenditure of Rs. 2,13,556 on renewals and repairs to the bridge structure. **Revenue account Receipts and expenditure.**

The increase in the income is principally the result of—

(1) The increased receipts from the terminal fee payable by the East Indian Railway traffic, consequent on the reimposition of the fee on edible grains and seeds passing over the bridge to and from Howrah ;

(2) the contribution of Rs. 26,000 made by the Bengal-Nagpur Railway in consideration of their passenger traffic over the bridge, and

(3) the increased earnings of the two ferry steamers of the bridge.

There was also a rise in ordinary expenditure during the year as compared with that of the past year under the head "Maintenance and Repairs" and "Interest on Advances" which was attributable to high prices of material and to the interest charged on larger advances of money to the bridge funds by the Port Commissioners, Calcutta.

The working result of the year was a deficit of Rs. 83,911, so that the closing debit balance on Revenue Account on the 31st March 1918 was Rs. 4,02,944.

The bridge was opened on 304 occasions, *viz.*, 39 times during the day and 265 times at night.

The report by Mr. Basil Mott on the design of the proposed new bridge has not yet been received.

CALCUTTA PORT TRUST.

267. The income of the year amounted to Rs. 1,58,39,175 which included Rs. 39,90,286 realised from war surcharges. The income of the previous year was Rs. 1,57,23,432, inclusive of war surcharges amounting to Rs. 26,60,897. **Income and expenditure.**

The expenditure amounted to Rs. 1,56,29,349, against Rs. 1,56,31,738 in the preceding year.

268. The year under review opened with a credit balance on Capital Account of Rs. 25·42 lakhs. The total expenditure on capital works during the year was Rs. 19·93 lakhs. **Capital expenditure.**

The principal works in progress were mostly the same as in the past year—

(1) General berths at Garden Reach.
(2) Reclamation work in the vicinity of New Dock Junction.
(3) Three Trial Wells in connection with King George's Dock.
(4) Excavation for entrance to King George's Dock.
(5) Coaling Berth at Garden Reach.
(6) Four-storeyed Warehouse in Hide Road.
(7) Reconstruction of No. 3, Calcutta Jetty.

269. The capital debt at the end of the year stood at Rs. 10,56,86,781, while the sum of the value of property according to block account and of the balance on capital account amounted to Rs. 14,54,87,008. In addition to these assets the Commissioners have several funds forming important assets of the Trust, *e.g.*, the Reserve Fund, the Depreciation Fund and the Fire Insurance Fund. **Capital account.**

Financial result.

270. The following table shows the income and expenditure of the Calcutta Port Trust during the year 1917-18, together with the figures of the previous year :—

	1917-18.				1916-17.				DIFFERENCE BETWEEN NET BALANCES OF 1917-18 AND 1916-17	
	Income.	Expenditure.	Net revenue.	Net expenditure.	Income.	Expenditure.	Net revenue.	Net expenditure.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Control	43,257	10,64,440	...	10,15,183	20,129	9,97,085	...	9,76,956	...	38,227
II.—Jetties	16,35,103	8,68,321	7,66,782	...	17,31,701	9,90,521	7,41,180	...	25,602	...
III.—Tea Warehouse ...	4,59,796	1,63,431	2,96,365	...	3,37,168	1,39,986	1,97,182	...	99,183	...
IV.—Petroleum Wharf ...	3,93,141	28,927	3,64,214	...	4,16,879	24,206	3,92,673	...	...	28,459
V.—Inland Vessels Wharves	4,23,309	1,88,256	2,35,053	...	4,22,698	1,81,413	2,41,285	...	...	6,232
VI.—Rentable lands and buildings.	8,25,220	1,35,690	6,89,530	...	8,13,632	1,40,095	6,73,537	...	15,993	...
VII.—Port	4,12,514	6,46,932	...	2,34,418	4,91,340	6,51,164	...	1,59,824	...	74,594
VIII.—Port approaches ...	5,21,495	8,31,481	...	3,09,986	5,96,074	8,82,621	...	2,86,547	...	23,439
IX.—Railway	13,47,246	12,02,577	1,44,669	...	15,70,062	13,12,187	2,57,875	...	...	1,13,206
X.—Wet Docks	36,62,894	27,78,163	8,84,731	...	41,31,446	30,55,657	10,75,789	...	...	1,91,058
XI.—Dry Docks	2,49,075	82,216	1,66,859	...	2,38,060	80,867	1,57,193	...	9,666	...
XII.—Ferry Service	4,08,777	3,13,320	95,457	...	4,33,361	3,47,793	85,568	...	9,889	...
XIII.—River dues	12,12,954	...	12,12,954	...	16,60,582	...	16,60,582	...	...	4,47,628
XIV.—Special war surcharges	39,90,286	...	39,90,286	...	26,60,897	...	26,60,897	...	13,29,389	...
Sale of unserviceable materials	1,05,354	...	1,05,354	...	54,844	...	54,844	...	50,510	...
Contribution from Howrah Bridge.	22,693	...	22,693	...	24,194	...	24,194	...	...	1,501
Interest on Revenue Reserve ...	81,577	...	81,577	...	81,577	...	81,577	...	...	...
Amount payable by Capital Account to Revenue Account; haulage and maintenance of rolling stock including establishment employed on Reclamation Works chargeable to Capital.	38,484	...	38,484	...	38,788	...	38,788	...	...	304
Interest and Sinking Fund charges.	...	62,88,723	...	62,88,723	...	62,31,403	...	62,31,403	...	57,320
Contribution to Vessels Replacement Fund.	...	5,00,000	...	5,00,000	...	2,00,000	...	2,00,000	...	3,00,000
Depreciation of securities held in Revenue Reserve Fund.	...	1,76,590	...	1,76,590	...	3,96,740	...	3,96,740	2,20,150	...
Depreciation of securities held in Vessels Replacement Fund.	...	58,585	...	58,585	...	...	...	...	...	58 585
Depreciation of securities held in Fire Insurance Fund.	...	1,17,077	...	1,17,077	...	...	...	...	...	1,17 077
Reserve Fund for depreciation of securities of Provident Fund.	...	34,620	...	34,620	...	...	...	...	...	34,620
War Bonus to Clerical and Menial Staffs.	...	1,50,000	...	1,50,000	...	...	...	...	...	1,50,000
TOTAL ...	1,58,39,175	1,56,29,349	90,95,008	88,85,182	1,57,22,432	1,56,51,738	83,43,164	82,51,470	17,50,782	16,42,252

CHITTAGONG PORT TRUST.

Finance.

271. The receipts of the Port Fund during the year under review, exclusive of the Government grant of Rs. 1½ lakhs, amounted to Rs. 1,95,769, as against Rs. 2,65,414 in 1916-17. The fall in revenue was due to the war as a result of which trade was dislocated and fewer vessels visited the port, thus affecting the main sources of income under the heads port dues, river dues, customs duty on jute and charges for mooring and unmooring vessels.

The ordinary expenditure of the Port Fund amounted to Rs. 3,40,945, as against the budget estimate of Rs. 4,76,480 and the actuals (Rs. 4,38,319) of the previous year. Compared with the budget estimate, the decrease in expenditure is mainly attributable to the postponement of expenditure on experimental river-training works, pending receipt of the report of Sir George Buchanan, K.C.I.E., who had been deputed by the Government of India, Railway Board, to report on the development of the port, and also to savings in the budget grants for repairs to the dredger "Karnafuli I", and for the provision of a new hull for the S. T. "Gekko". The report in question was received after the close of the year.

The net working result is a credit balance of Rs. 4,824. If there had not been the Government subsidy of Rs. 1,50,000, the year would have closed with a deficit of Rs. 1,45,176. With a view to improving the unsatisfactory financial position of the Port Fund, Government sanctioned the following measures :—

(*a*) continuance of the Government grant of Rs. 1½ lakhs till the termination of the war ;

(*b*) raising of port dues from 4 annas to 4 annas 6 pies per ton, with effect from 12th August 1917 ;

(*c*) imposition of a surcharge of 100 per cent. on mooring and unmooring charges from 1st March 1918;

(*d*) a Bill for the amendment of the Chittagong Port Act was passed by the Legislature to remove the prescribed maximum rate of river dues of 4 annas per ton imposed by section 58, sub-section (2) of the Act.

Capital expenditure during the year amounted to Rs. 20,159.

Assets and Liabilities.

272. The value of the Port Commissioners' properties was estimated on 31st March 1918 at Rs. 35,11,850, and the liabilities (excluding Rs. 5,12,583, being the outstanding balance of loans from Government for revetment work) at Rs. 29,022. The corresponding assets and liabilities for the preceding year were Rs. 35,90,091 and Rs. 12,295.

Arrival of vessels.

273. The total number of ocean-going steamers and sailing vessels entering the port was 600, as against 774 during the previous year.

Value of trade.

274. The total value of foreign and coasting sea-borne trade amounted to Rs. 598·05 lakhs (excluding 63·81 lakhs on account of jute and tea for Government), as against Rs. 866·68 lakhs during the preceding year. The decrease was due to the war.

BENGAL STEAM BOILER COMMISSION.

Inspection of boilers.

275. The total number of boilers on the registers of the Commission for Calcutta and mufassal was 5,627, against 5,683 boilers in the previous year. The total number of inspections made during the year was 4,805. One hundred and sixty-eight boilers were struck off the registers during the year, because they were either not presented for examination for over five consecutive years or had been removed out of jurisdiction or condemned as unfit for further service. Seven hundred and fifty-four boilers were not presented for inspection, being temporarily out of use or under repairs.

WAR SECTION.

As in the previous years, matters connected with the war continued to be dealt with confidentially in the War Section of the Marine Department.

CHAPTER IV—PRODUCTION AND DISTRIBUTION.

Agriculture.

[Report on the Agricultural Department, Bengal, for the year ending 31st March 1918.]

On the 1st March 1918 the headquarters of the Director of Agriculture were transferred from Calcutta to Dacca. The scientific work of the department has become largely centralized at the Dacca Farm, and it is, therefore, advantageous that the Director should be in very close touch with the work carried on there.

Administration.

276. Mr. S. Milligan was in charge of the department throughout the year. The Presidency is still without the services of Mr. Annett, Agricultural Chemist, and Mr. McLean, Deputy Director, Eastern Circle, who have been absent since the autumn of 1916, the former on work connected with the war and the latter on military duty. Babu Rajeswar Das Gupta, Superintendent of Agriculture, was appointed to officiate for Mr. McLean in the Eastern Circle in November 1917. Mr. F. Smith was in charge of the Western Circle throughout the year; and Mr. Finlow, Fibre Expert, supervised the work of the Chemical Section throughout the period under report and that of the Botanical Section until Mr. Hector's return from leave in October 1917.

Agricultural Education.

277. The number of students from Bengal at the Sabour College was 17 as in the previous year.

Research and experiment.

278. Satisfactory progress has been made in extending the distribution of *Indrasail* paddy seed and *Kakya Bombai* jute seed in the Dacca and Mymensingh districts. In 1917, 2,000 maunds of *Indrasail* seed were distributed in 5-seer packets in the districts of Dacca and Mymensingh on the condition that an equal quantity of seed should be returned to the department. This condition has been strictly fulfilled; and if, as is hoped, at least 20 per cent. of the produce has been reserved by the cultivators for use as seed in 1918, sufficient seed will be available for 100,000 acres. The *Nagra* variety of transplanted winter rice has proved successful at the Chinsurah Farm and arrangements have been made for initiating its distribution in the same manner in Western Bengal. *Kataktara* autumn rice, which has done well at the farms, is now under trial in districts of Eastern and Western Bengal, with a view to subsequent distribution if results are satisfactory. One hundred maunds of the selected *Kakya Bombai* seed (*Capsularis*) were distributed in 1917 in $\frac{1}{8}$-seer packets in Dacca and Mymensingh districts on the condition that the recipients should sow the seed separately and keep the whole of the produce for seed for the next year, the produce of 1917 being estimated to give sufficient seed for an average jute holding in 1918. Special care was taken to explain what was intended and 90 per cent. of those who obtained seed kept enough for their own requirements this year, and seed sufficient for 30,000 acres was in the hands of cultivators of Dacca and Mymensingh at the beginning of 1918. About 600 maunds have been similarly distributed in 1918 in these two districts and in the remaining important *Capsularis* districts of Tippera, Faridpur, Rangpur, Pabna and Bogra. Remedies for the *ufra* disease of broadcast winter rice have continued to receive attention and the Mycological Collector has been chiefly employed on this work. The scientific study of the parasite has been further pursued by the Imperial Mycologist at Pusa. It has been established that the parasite survives in the stubble from year to year between harvest and sowing. The remedy is to deprive the parasite of the stubble on which it lives, and the problem is to find means for applying this remedy. The problem is sought to be dealt with by two alternative methods, the removal of the stubble by burning and thorough cultivation, and the elimination of

the stubble by substituting a different crop. Moderate success has been obtained in *ufra*-infected fields by stubble-burning, but the crops on the fields so treated are liable to infection from neighbouring fields. At Pubail, a place notorious for *ufra* in Dacca district, a piece of low-lying land was terraced into two levels, and in place of deep water winter rice, summer rice was grown on the lower area and jute on the higher area. The cost of this work as carried out by the department was prohibitive; but the experiment may induce cultivators to try similar methods for themselves, and they can probably do the work more cheaply. Mr. Finlow has been led by the shortage of flax to make experiments with sunn hemp which promise valuable results. Jute is not strong enough as a substitute for flax for the manufacture of canvas, and sunn hemp in its normal state is too rough for spinning. Mr. Finlow has elaborated a softening process which makes sunn hemp fibre suitable for spinning, and the suitability of the thread for canvas is now under investigation. Among experiments with manure for jute, those in connection with potash are of the greatest interest. The efficacy for jute of potash obtained from the water hyacinth has been established, and potash has been found to be a preventive of the disease *rhizoctonia*, which is a phenomenon of potash starvation common in the red soils of Eastern Bengal. Further, experience with water hyacinth ash has shown that stunted hyacinth plants do not contain a high enough proportion of potash to make it profitable to convert them into ash for sale, and that such plants should be rotted and used locally for manure, only deep water plants being converted into ash.

Cattle-breeding.

279. The policy laid down by Government for the Rangpur Cattle Farm is being followed. During the year a pedigree Hansi bull was purchased from the Cawnpore Military Dairy Farm, and there are two full-grown Bengal bulls and 99 cows on the farm. Seventy-one cows were purchased during the year to replace those which were not considered to be of good enough quality. Two distinct herds are maintained, one of indigenous cattle and the other of cross breed: the change of bulls is reported to have brought about an improvement in the stock. On the cultivable area of the farm fodder crops are now chiefly grown.

Weaving.

280. Mr. N. N. Pillai, the Weaving Master, made systematic efforts to revive the home-spinning and weaving industries. He has endeavoured to introduce improved "charkas" or spinning wheels and looms, and has assisted the Tippera District Board in the equipment of a new technical school, and has supplied model "charkas" which are now being produced locally. In the Kishoreganj subdivision of the Mymensingh district, he introduced fly-shuttle looms and the weavers are now turning out *dhotis* and *saris*. In consultation with the Co-operative Department he has assisted the purchase of raw materials and the disposal of manufactured articles.

Sericulture.

281. The operations for the improvement of the silk industry in Bengal were continued on the lines of the previous years. The continued rise in the prices obtained for home-reeled silk has resulted in an increase in the area under mulberry in Bengal.

Fisheries.

[Report on the Department of Fisheries, Bengal and Bihar and Orissa, for the year ending 31st March 1918.]

Fisheries.

282. Mr. Southwell has been in charge of the department as Director and the vacant post of Superintendent of Fisheries was filled in August 1917 by the appointment of Lala Baini Prashad, on whom the Punjab University has since conferred the degree of Doctor of Science for original work on the mosquito. Dr. Baini Prashad's appointment has greatly strengthened the scientific side of the department.

The most notable features of the season's work on carp are the increased distribution of carp-fry and the completion of the Delabagh experimental tanks. The numbers of fry distributed by the department increased from 2½ lakhs in 1915 to 6 lakhs in 1916, and in 1917 there was a further increase to 11½ lakhs. The first attempt to stock the new Delabagh tanks was a failure,

the fish taken from the Sone being attacked by disease. The object of these tanks is to provide a supply of fry which can be guaranteed not to contain an admixture of the fry of predatory fish.

Three new co-operative societies of fishermen were established in Pabna district during the period under review, the total number of such societies up to the 31st March 1918 being 15.

The investigation on hilsa continues to present difficulties which have not yet been surmounted. Artificial fertilisation of eggs has been achieved, but it has not yet been found possible to hatch the eggs. The migratory habits of the fish and their delicacy add difficulties to the work of investigation.

Weather and Crops.

[Season and Crop Report of Bengal for the year 1917-18 ; Crop Forecasts of Bengal for the year 1917-18 ; Agricultural Statistics of India, Volume I.]

Character of the season.

283. The rainfall in March and April being in defect, the sowing of the *Bhadoi* crops was retarded in some districts. The month of May was favourable. In June, however, some damage was done especially in the western districts, owing to an early rise of the rivers. The weather was seasonable in July, but during August and the first fortnight of September it was abnormally dry, interfering with the steeping of jute and the transplanting of winter paddy. Subsequent weather conditions were very favourable and continued so until the end of October when excessive rain and high winds did some damage to the crops. From November to February the weather was too dry for the spring crops which suffered in consequence. The season may be described as a fairly good one for autumn crops, very good for the winter rice crop, but fair only for spring crops.

The following table furnishes the estimated area and outturn in 1917-18 of *Bhadoi*, *Aghani* and *Rabi* crops as compared with the corresponding estimates of the previous year :—

Name of harvests.		Normal area in acres.	Area cultivated during 1916-17 in acres.	Area cultivated during 1917-18 in acres.	Taking 100 to represent the normal outturn, how much represented the outturn for the year—	
					1916-17.	1917-18.
Bhadoi ...		9,031,450	8,551,000	8,589,600	74	88
Aghani	Winter rice.	16,622,500	15,667,400	15,515,500	94	100
	Sugarcane	256,200	220,100	207,400	80	89
	Other sugar-producing plants.	129,500	70,700	67,000	...	...
Rabi		6,022,050	4,708,600	4,561,800	81	77
Total ...		32,061,700	29,217,800	28,941,300	...	...

Bhadoi Crops (excepting jute).

284. Weather conditions were on the whole favourable in Western Bengal. Some damage was, as stated above, caused to these crops by the sudden rise of the rivers in June. In Northern Bengal, the rainfall was defective in the early stages of the season, but conditions subsequently improved. In the eastern districts, although the crops suffered to some extent from an unequal distribution of rainfall, from floods and from insect pests, the season on the whole was a fairly good one. Drought in Tippera and floods in Noakhali were responsible for considerable damage to the *Bhadoi* crops. Autumn paddy gave a fairly good outturn and the yield from other *Bhadoi* crops has been fair. The outturn of the different autumn crops of

the province has been estimated at 88 per cent. of the normal, against 74 per cent. last year.

Jute.

285. Although the weather was rather dry at the beginning of the season for early sown jute in some districts, the season on the whole was one of the most favourable experienced in recent years for this crop. Damage by insects and floods was reported from a few localities only. The want of water during August and the first half of September seriously interfered with the retting of the crop in many of the Eastern and Northern Bengal districts, the average quality of jute fibre being, in consequence, inferior. The crop may be described as having been a very good one in most of the Eastern Bengal districts, moderate only in Northern Bengal and good in Western Bengal.

Winter rice.

286. Owing to good rainfall in the beginning of the year under report, preparatory tillage was well advanced for the broadcast crop which was sown under favourable conditions. Transplanting of rice, although commenced at the usual time, was seriously interfered with in many districts, especially in North Bengal, owing to want of rainfall in August and during the first half of September. The weather, however, was subsequently very favourable, although excessive rain accompanied by high wind did some damage to the standing crop towards the end of October. In the Burdwan Division the floods of the Ajai and Damodar rivers affected a wide area, but fortunately the damage was not very serious. The season on the whole has thus been favourable and the crop a very good one. The provincial outturn is returned for the first time on record at 100 per cent., *i.e.*, a normal crop. The figure for the previous year was 94 per cent. of the normal.

Sugarcane.

287. The season was, on the whole, favourable for this crop, although excessive rainfall and floods in October caused considerable damage in the Northern and Western districts. The outturn for the province works out at 89 per cent. of the normal, against 89 per cent. in the preceding year.

Rabi Crops.

288. Excessive rainfall in the months of September and October retarded preparatory operations. Rabi sowings were, in consequence, generally late. The crops were thus in no fit state to stand the prolonged winter drought and suffered considerably thereby. The combined percentage outturn of the various rabi crops for the province is returned at 77 per cent. of the normal, against 81 per cent. of the preceding year.

Cotton.

289. Weather conditions were generally unfavourable for cotton, owing mainly to excessive rainfall in June, July and October. The early crops suffered most and the outturn was poor. The late crop was, however, better. The total outturn of cotton (both early and late) exclusive of Hill Tippera was estimated at 15,718 bales, against 16,618 bales of the preceding year.

Area under cultivation.

290. The total cropped area of the province was returned at 28,941,300 acres, against 29,217,800 acres for the previous year. Figures for the principal crops are given in the following table :—

Name of crops.	Normal area in acres.	Area cultivated during 1916-17 in acres.	Area cultivated during 1917-18 in acres.
Rice	22,024,600	21,091,000	20,961,800
Other food grains including *marua* and pulses.	2,443,000	1,745,600	1,721,700
Jute	2,643,800	2,351,800	2,376,200
Oilseeds	1,952,300	1,655,400	1,558,300
Tobacco	411,800	311,900	292,100
Sugarcane	256,200	220,100	207,400

Prices.

291. There has been a further falling-off in the price of rice, following on the good harvest. The market for jute continued dull owing to the heavy crop and want of export. The price of winter rice (common) at the time of harvest varied from Rs. 3 per maund at Khulna, Bankura, Bogra and Faridpur to Rs. 4-6 per maund at Howrah, and that of autumn rice from Rs. 2-12 per maund at Khulna to Rs. 4-4 per maund at Faridpur and Chittagong. Local prices for jute ranged from about Rs. 4-8 to Rs. 6 per maund.

Co-operative Societies.

[Report on the Working of Co-operative Societies in Bengal for the year 1917-18. Statistics of British India, Part II—Commercial.]

Development.

292. The following table shows the chief features of the progress during the year :—

	Societies.		Membership.		Working Capital.	
	Last year.	This year.	Last year.	This year.	Last year.	This year.
					Rs.	Rs.
Provincial Bank (Federation) ...	...	1	...	31	...	14,77,995
Central Banks	47	52	6,668	7,401	58,89,950	67,52,191
Agricultural Societies	2,857	3,374	110,961	125,590	67,06,628*	80,50,717
Non-agricultural Societies ...	169	203	25,582	29,689	25,64,868	30,49,121
Unions	13	13	237	275		...
Total ...	3,086	3,643	143,448	162,986	1,51,61,446	1,93,30,024

* Revised figure.

Provincial Bank.

293. The Provincial Bank, or, more correctly, the Provincial Co-operative Federation, began its operations on the 1st April 1918. Its main object is to assist its member societies in obtaining funds from outside their areas ; and within three months of its inauguration, 28 out of 52 Central Banks had joined. The depositors who had previously invested money in individual Central Banks have shown their appreciation of the improved security offered by the Federation, and Rs. 13 lakhs out of Rs. 20 lakhs thus invested have been transferred to it from individual banks at reduced rates of interest. The Federation has made a favourable start, and it affords excellent prospects for the economical utilization of surplus funds.

Central Banks.

294. The number of Central Banks has increased from 47 to 52 ; their working capital from Rs. 59 lakhs to Rs. 67½ lakhs ; and their paid-up share capital from Rs. 8¾ lakhs to Rs. 10 lakhs. Only 11 of these banks have appointed paid secretaries or assistant secretaries. The number of supervisional unions is still 13, and the conditions of the year did not encourage rural societies to combine into unions and undertake the liabilities of others in addition to their own.

Agricultural Societies.

295. There are now 3,374 agricultural societies, compared with 2,857 at the end of 1916-17 and 2,067 at the end of 1915-16. The number of members has increased by 13·1 per cent. and is now 125,590, and the working capital by 20 per cent. to Rs. 80½ lakhs. There has been a further increase in the amount of overdue loans which is mainly due to the low prices of jute and paddy and the abnormal conditions arising out of the war. The amount of overdue loans is serious, but there can be no question of the relief which co-operation has afforded in a season of unusual difficulty. Since the close of the year collections in all the jute districts are progressing most satisfactorily. Of the societies of special type the Bakarganj Sundarbans Co-operative Supply and Agricultural Sale Society, Limited, is doing excellent work ; and the Naogaon Ganja Cultivators' Co-operative Society, Limited, which was started at the beginning of the year, has also worked satisfactorily, making a profit of 5 lakhs during the year.

Non-agricultural societies.

296. The number of non-agricultural societies has risen from 169 to 203, and their working capital from 25¾ lakhs to 30½ lakhs. Among these societies the most interesting development is that of weaving societies to which the high prices of the cloth have directed special attention. These have increased from 34 to 65 in number. Fishermen's societies have increased

from 16 to 25, but it has not yet been found possible to establish co-operative methods of fishing and disposal of fish. The six milk societies in Barasat Subdivision indicate one line of action in dealing with the difficult problem of milk-supply in cities.

The Bengal Co-operative Organization Society.

297. The Bengal Co-operative Organization Society has been started with the object of developing general interest in co-operation. It has taken over the Co-operative Journal and also publishes a monthly Bengali journal for the benefit of rural societies. A library has been opened, and a programme of public lectures has been arranged. The interest which this organization has evoked is only one out of many indications of the favourable attitude of the public towards the movement.

Real collaboration between the Departments of Agriculture and Co-operation is on the increase, and the lines on which they can best help each other are becoming more clear. Meetings between the district staff of each department and joint-tours are a feature of this year in many districts and everywhere the relation between the two departments are becoming more and more cordial.

Horticulture.

[Annual Report of the Royal Botanic Garden and Other Gardens in Calcutta and of the Lloyd Botanic Garden, Darjeeling, for the year 1917-18.]

The Royal Botanic Garden. General.

298. During the year the garden was still suffering in its appearance from the effects of the cyclone of September 1916, which was the worst experienced for the last 20 years. The necessity for cutting up and removing fallen and dead trees caused a diversion of the labour force from routine work and cultivation of plants, so that the latter were to a large extent unavoidably neglected. Considerable sections of the river bank were revetted during the year and this caused a serious diversion of time and labour.

Plant and seed distribution.

299. About 45,500 plants and 23,500 cuttings and over 3,300 packets of seed were distributed. Besides, 160 lbs. of *Polyalthia longifolia* seed were supplied to the Arboricultural Department at Delhi. Over 270 packets of seed were received, exclusive of two barrels of Mahogany seed from the Royal Botanic Garden, Kew. Owing to the absence of the Superintendent on special duty for the greater part of the year, the planting up of the Economic Garden was held in abeyance and work was restricted to keeping it in cultivation.

Herbarium and Library.

300. Nearly 10,000 sheets were incorporated in the herbarium and over 10,000 taken out for distribution to other herbaria. Over 300 books were added to the library during the year.

Publication.

301. No publication was issued during the year. Part II of Volume XII of the Annals of the Garden was finally approved for publication towards the end of the year.

Calcutta gardens.

302. These gardens were kept in reasonably good order during the year, the work being of a routine horticultural character.

Lloyd Botanic Garden, Darjeeling.

303. There was an excess of rain during the year. An exceptionally severe hailstorm on the 16th March caused considerable damage to the plants of all kinds. Work was conducted under difficulties. Nevertheless, the garden when inspected just after the close of the year was in good order. Over 80 new species were planted out, and over 6,600 plants, 4,800 dozens of seedlings, 500 bulbs and tubers and 5,800 packets of seeds were distributed during the year.

Cinchona Plantations and Factory.

[Report of the Government Cinchona Plantations and Factory for the year 1917-18.]

Plantations.

304. The total area with a full complement of cinchona on the Mungpoo and Munsong plantations was 2,514 acres, as compared with 2,405½ acres in 1916-17. The estimated total number of cinchona trees was 3,436,000, being about 2,758,000 on Munsong and 678,000 on Mungpoo. During the year the total bark harvest was 618,703 lbs., as compared with 499,417 lbs. in the

preceding year. The cultural conditions of both plantations were satisfactory, but the change from relying largely on Java bark to a policy of large plantation extensions did not come in time to counteract entirely the conditions in which Java bark cannot be purchased, and it will be two or three years yet before the plantations will be old enough to supply sufficient bark to keep the factory working at its full capacity.

Outturn.

305. The total quantity of bark worked up in the Quinine Factory was 654,093 lbs., against 459,600 lbs. in 1916-17, and the quantity of quinine sulphate produced amounted to 29,417·5 lbs., against 20,903½ lbs. in the previous year. In addition, 8,518 lbs. cinchona febrifuge, 1,261 lbs. quinidine, 930 lbs. residual alkaloids and 50 lbs. cinchonidine were manufactured. The great demand of quinine during the year has reduced the reserve from 131,976 lbs. 11 ozs. at the end of 1916-17 to 63,248 lbs. 12 ozs. at the close of 1917-18. The reserve is valued in the stock account at Rs. 16,76,091-14.

Forests.

[Forest Administration Report for the year 1917-18. Statistics of British India, Part IV (*b*)—Finance and Revenue.]

Administration.

306. There was a small change in the area of the reserved forests under the Forest Department, due to the inclusion of 495 acres in the Buxa Forest Reserve. The settlement work in respect of this area was completed during the year, and some progress was made in the work of demarcation in the Chittagong Hill Tracts Forest Division. No new working plans were sanctioned during the year, but a revised working scheme for the Kurseong Forest Division for the period 1919-1926 was sanctioned after the close of the year.

Communications and buildings.

307. One mile of cart-road, two miles of bridle-path and two miles of foot-path were constructed during the year. The total expenditure on communications amounted to Rs. 15,904, against Rs. 22,675, and on new buildings and repairs to Rs. 25,311, against Rs. 34,776 in the previous year.

The important buildings constructed during the year were a rest-house for officers at Chapramari and Range office at Madarihat in the Jalpaiguri Division, Range office and Ranger's quarters in the Kurseong Division and a Forester's quarters and out-houses in the Chittagong Hill Tracts Division.

Forest offences.

308. There was a slight increase in the total number of forest offences reported during the year, the number being 2,780 against 2,642 in the previous year. The average of the past three years was 2,276. In the Chittagong Division there was an increase of 167 offences, against 129 in the preceding year.

Protection from fires.

309. The area in which fire protection was attempted during the year comprised 367,854 acres, and the percentage of successful protection was 97·9. The cost per square mile was Rs. 8-1, against Rs. 7-7 in the previous year. The area burnt over amounted to 7,566 acres, against 8,290 in the preceding year. In 19 out of 36 cases the causes of the fires were undetected.

Protection from Cattle.

310. There was no change in the area open to grazing. The number of cattle impounded during the year under review was 4,720, against 5,226 in the previous year and 4,238, the average of the last three years. The decrease was mainly in the Buxa Division due to the satisfactory working of the token system and to the proper punishment of offenders in the preceding year.

Exploitation.

311. Departmental work increased considerably during the year, owing to the fact that a large quantity of sleepers was sawn and supplied to the Munitions Board. Besides sleepers, timber, both round and sawn, was supplied for various purposes connected with the production of munitions. The outturn of timber increased from 6,187,000 last year to 7,645,000 cubic feet during the year under report.

Minor forest produce continued to be disposed of generally under permits at scheduled rates. There was a large increase in the outturn of bamboos and there were increased sales of bamboos and canes to the tea-gardens.

Last season's Khedda operations conducted by the Forest Department in the Buxa Forest Division resulted in the capture of 33 elephants. Forty-three elephants were also captured in Chittagong during the year.

312. The number of persons reported to have been killed by tigers in the Sundarbans was 14, against 19 in the previous year, and 86, the average of the last five years. This remarkable decrease is reported to be due to discrimination in the issue of tiger-shooting permits to approved *shikaris* as well as to a decided increase in the number of deer. The number of tigers killed was 46 including one cub, against 48 in the previous year. **Mortality caused by wild animals.**

313. Observations on the spread of the *sâl* root fungus were continued during the year in Buxa, Jalpaiguri and Kurseong Forest Divisions. **General.**

The question of cattle-grazing in the Darjeeling Hill Forest was considered by Government and orders were issued after the close of the year for preventing hardship to graziers by allowing them in future to restore their herds to the previous strength and by expediting the preparation of Government *bathans* with paddocks attached.

The proposals for strengthening the controlling staff of the Forest Department mentioned in last year's report were sanctioned by the Secretary of State during the year.

Mr. H. S. Gibson, Deputy Conservator of Forests, was permitted during his leave to study methods of forest engineering and mechanics in the United States of America. He submitted during the year an interesting report, showing the results of the enquiries made during his tour.

314. During the year under review the total revenue increased from Rs. 14,33,555 in 1916-17 to Rs 15,01,670, while the expenditure increased from Rs. 6,29,153 to Rs. 7,71,124, and the surplus amounted to Rs. 7,30,546 against Rs. 8,04,402 in the preceding year. The average of the last five years was Rs. 7,57,878. The increase in expenditure and consequent decrease in the surplus is attributed mainly to the large expenditure on account of departmental extraction of timber which has increased from Rs. 402 last year to Rs. 1,08,844 in the year under review. This was incurred mainly in connection with the production of munitions. **Financial results.**

Manufactures and Mines.

[Statistics of British India, Part I—Industries.]

315. Owing to favourable weather conditions at the time of sowing, the area under jute in Bengal increased from 2,351,821 acres with an estimated outturn of 7,429,875 bales in 1916 to 2,376,247 acres with an outturn of 7,853,956 bales in the year 1917. Seventy-two jute mills were at work during the year, as compared with 71 in 1916, employing, on an average, 262,767 operatives daily—an increase of 2,568. The number of looms and spindles working in the jute mills was 40,271 and 825,795, respectively, as against 39,404 and 817,759 in 1916. The authorized capital employed, rupee and sterling, was Rs. 10,96,71,000 and £ 2,138,358. **Jute.**

316. The number of cotton-mills at work during 1917 was 14, as compared with 13 in the previous year, the number of persons employed daily being 10,989 against 9,781 in 1916. The number of looms and spindles was 2,330 and 373,991, respectively. The authorized capital employed was Rs. 1,31,00,000. None of the companies is incorporated in England. **Cotton.**

317. The area under tea in 1917 was 167.700 acres, the quantity of tea manufactured being returned at 88,308,662 lbs., as compared with 165,800 acres and 92,644,990 lbs. in 1916. There were 305 plantations employing on an average 107,670 permanent and 30,731 temporary hands daily. **Tea.**

318. The number of coal-mines worked during the year rose to 190 from 169 in 1916, but the total output fell to 4,631,571 tons, or over 3½ lakhs of tons less than in the previous year. The decrease was due to a deficient labour supply. The average number of persons employed both above and below ground was only 38,585, as against 43,040 in the previous year. Undoubtedly, the chief reason for this decrease was the unsettling influence of war conditions which disturbed the distribution of labour; but minor factors were the good harvest of 1916 and the abnormally heavy monsoon of 1917, which tended to prevent labour coming in to the mines in the latter part of the year. Development was hampered, especially in the larger and deeper mines, by **Coal.**

scarcity of machinery and plant and inability to obtain replacements and additions from Europe.

Iron-ore. 319. As in the previous year, no iron-ore was raised. Suitable ores were obtained by the Bengal Iron and Steel Company, Kulti, from the Singhbhum district.

Salt and Saltpetre. 320. The quantity of refined saltpetre produced during the year was 16,989 maunds, against 7,534 maunds in the previous year. The increase was due to greater demand for saltpetre on account of the war. The quantity of salt educed in the process of refinement of saltpetre was 942 maunds as compared with 42 maunds in 1916-17.

Paper. 321. There were three paper-mills at work during the year 1917, employing 4,028 persons daily against 3,879 in 1916. These mills produced 26,203 tons of paper valued at Rs. 1,63,95,060.

Silk. 322. There were 8 silk-mills and 47 small establishments at work, employing 3,780 and 5,000 hands, respectively. Nearly 7,437 kahons (9,518,080) of disease-free seed cocoons were distributed from Government nurseries.

Sugar. 323. The acreage under sugar crops fell from 290,800 in 1916-17 to 274,400 in 1917-18. The Cossipore Sugar Works, which is the only regular sugar factory in the province, employed 761 persons daily. Five small sugar concerns in Calcutta gave employment to about 60 people only.

Wool. 324. Two woollen mills were at work during the year 1917, employing 290 persons against 215 in 1916. The number of looms and spindles was 26 and 1,448, respectively. These mills produced 611,772 lbs. of blankets valued roughly at Rs. 7,58,207. One of these factories is Government owned and the other a private concern.

MISCELLANEOUS MANUFACTURES IN EACH DIVISION.

[Land Revenue Administration of Bengal for the year 1917-18.]

Burdwan. 325. The coal-mines in Asansol and the various mills and factories in Hooghly and Howrah had a prosperous year. The brass and bell-metal industries in Burdwan, Bankura, Hooghly and Midnapore suffered greatly on account of the high prices of raw materials, but the weavers in Bankura did good business owing to the great demand for local-made cloths in spite of the high price of yarn.

Presidency. 326. It is reported that the war has affected economic progress in many ways in the Presidency Division. The stoppage of supply of sugar from abroad is said to have given an impetus to the sugar industry in the Basirhat subdivision of the 24-Parganas and in the district of Jessore.

During the year under report, products of cottage industries throughout the Presidency to the value of a quarter of a lakh of rupees were placed on the market by the Bengal Home Industries Association, the most notable developments being in coarse weaving, *Matka* silks, buttons and basket-making.

Dacca. 327. In Faridpur district molasses were extensively manufactured owing to the abundance of date trees and sugarcane. Coarse and fine mats were manufactured in Bhusna thana of the Sadar subdivision. The two oil-mills at Jhalakati and Nalchiti in Bakarganj district continued to work as in the preceding year. The oil-mill at Bhola has ceased working since last November, as some of its accessories had gone out of order. The Commissioner reports that it is interesting to note that the *Jugis* and *Jolas* in the Sundarbans make country towels, *saris* and coarse *dhuties* for sale in the local markets and that these *dhuties* are sold at a cheaper price than those manufactured in mills. In Dacca there has been a considerable development in the manufacture of horn and mother-of-pearl buttons, large supplies being under contract for the Munitions Board. A successful experiment has also been initiated in opening up cottage chrome tanning.

Chittagong. 328. In Chittagong ship-building activities were zealously pursued, and seven brigs and schooners were built and registered during the year, the

registered tonnage varying from 89 to 450 tons, while more are in process of construction. The tinning factories of Messrs. Jamal Brothers & Company, and the Burmah Oil Company, the Shalimar Works of Messrs. Turner Morrison & Company and the Cotton Ginning Mill were fully employed during the year. The weavers generally have thrived on account of the high price of imported cloth. In Tippera, jute-baling, its most important and prosperous industry, was dull on account of the war. Betelnut was largely exported from the district and the *hookka*-making industry was very prosperous. The oil-mill at Chandpur supplied oil to various places in Eastern Bengal. The export of fish from Ashuganj continued. In Brahmanbaria buttons of mother-of-pearl and cocoanut shell and bamboo are being largely made and appreciated by the people. In Noakhali the export of betelnut and *khuiye* (inner bark of the betelpalm leaf used as wrapper of Burma cigars) flourished, but trade in poultry and eggs and the mat industry of Feni suffered considerably, owing to the difficulties in transport.

Rajshahi.

329. The most important and organised industry in the Rajshahi Division is tea which is confined to Jalpaiguri and Darjeeling. In Jalpaiguri the crop was good, but in Darjeeling the outturn was not satisfactory, owing to unfavourable weather. Owing to the high price of silk cocoons the silk industry in Malda prospered, and there has been a gradual expansion of mulberry cultivation. The brass and bell-metal industry in Malda was almost at a standstill for want of raw material. Cotton-weaving was more active in the Kaliachak thana. The Mango-Canning Company supplied 15,000 tins to the Army Department. The flour-mill at Bogra was turned into a company and has been doing fairly well. The rice-husking mill at Hili continued to work well during the year. In Darjeeling one rice and oil-mill and two rice-mills are reported to have done well during the year.

Working of the Indian Factories Act, 1911 (XII of 1911).

[Annual Report on the abovementioned Act for the year 1917. Statistics of British India, Part I—Industries.]

Number of Factories and System of Work.

330. There were 522 factories at the close of the year 1917, against 492 in 1916, the number of new factories brought under the operation of the Act being 36. The daily average number of operatives employed during the year was 410,769 or 3,451 more than in the previous year, the increase being due chiefly to the employment of a larger number of persons in the arms and ammunition factories. In 84 factories work was carried on by means of shifts and in 175 with stoppages after intervals of six hours ; 75 factories were exempted under Part C, Schedule I, of the Act and in 171 factories other arrangements were in force. Seventeen factories remained closed throughout the year.

Inspection.

331. Seventy factories were inspected once, 34 factories twice, 14 factories three times and 92 factories more than three times. Two hundred and ninety-five factories were not inspected at all, because the inspecting staff were largely employed throughout the year in advising Government on applications for priority certificates in respect of materials required from the United Kingdom and were consequently unable to devote their attention to regular routine inspection. Urgent matters connected with the administration of the Factories Act were, however, properly attended to.

Sanitary and housing arrangements, water-supply, etc.

332. The sanitary arrangements in factories were generally good, and a plentiful supply of good filtered water was available in most of them. A steady tendency on the part of the management to increase and improve the accommodation for workers was noticeable especially in the textile factories.

General health of operatives.

333. Apart from cases of malarial fever said to have occurred in some of the jute-mills, the general health of the operatives was good during the year and there was no serious sickness in epidemic form.

Wages and general condition.

334. The general condition of the operatives was satisfactory. There was little change in the rate of wages, though there has been a general rise in

Railway and Engineering Works, owing chiefly to war conditions, and also in the cotton-mills owing to increased demand for labour in those mills.

Employment of women and children.

335. During the year some cases of irregular employment of women and childern were detected. Warnings were issued in four cases, and in four others, prosecutions were instituted, of which three ended in conviction and one was withdrawn. In all 22,620 children were certified under section 7 of the Act by the various certifying surgeons of factories, the number certified by the whole-time Certifying Surgeon of Factories, Barrackpore, being 10,436. Continued progress was made in the general fencing of machinery in the jute-mills and the number of fatal or serious accidents and in particuler those due to inadequately fenced machinery decreased. There was an increase, however, in the number of minor accidents as compared with the figures of the preceding year, owing chiefly to a larger number of semi-skilled and unskilled labourers being employed in the Railway and Engineering Works which had to work at high pressure and in many cases for longer hours.

Fire.

336. There was only one serious fire at a jute-mill in Bally in the district of Howrah, causing damage estimated at about Rs. 2 lakhs.

Strikes.

337. There were seven temporary strikes, of which one was due to some religious differences between the workers, two were for increased wages and the remainder on account of minor grievances. In one case the assistance of the police had to be obtained.

Trade.

[Report on the Maritime Trade of Bengal for 1917-18. Annual Statement of the Sea-borne Trade and Navigation of the Bengal Presidency. Annual Statement of the Sea-borne Trade of British India with the British Empire and Foreign Countries. Annual Statement of the Coasting Trade and Navigation of British India. Statistics of British India, Vol. I—Commercial Statistics.]

I.—FOREIGN SEA-BORNE TRADE.

[Report on the Maritime Trade of Bengal for 1917-18.]

Foreign Trade.

338. In the fourth year of the war the trade of the Bengal Presidency, both foreign and coasting, contracted from Rs. 178·15 crores to Rs. 171·04 crores, a decrease of Rs. 7·11 crores or 4 per cent. over that of the preceding year and of Rs. 2·08 crores over the quinquennial pre-war average. The value of the foreign trade declined by Rs. 7·06 crores, or 4 per cent., to Rs. 150·51 crores, while the coasting trade fell by Rs. 5·18 lakhs to Rs. 20·53 crores, and by Rs. 1·37 crores as compared with the pre-war average. The foreign import trade rose in value by Rs. 2·29 crores, or 3·8 per cent., to Rs. 62·38 crores, but the export trade fell by Rs. 9·35 crores, or 9·6 per cent., to Rs. 88·13 crores. During the year of report the shortage of tonnage, consequential rise in freights and higher prices continued. Calcutta absorbed 96 per cent. of the total trade of Bengal, consisting chiefly of tea and raw jute, the remainder being credited to Chittagong and its subordinate ports.

The following table shows the extent to which the foreign trade in merchandise of the province is centred in the chief port of Calcutta :—

	Province	Calcutta.	Chittagong and its sub-ports.
	Rs. (In thousands.)	Rs. (In thousands.)	Rs. (In thousands.)
Imports	5,83,922	5,79,851	4,072
Exports	8,49,914	8,23,750	26,164

Treasure.

339. The effect of the war on the movements of private treasure was marked, the net imports of gold rose from Rs. 144 lakhs to Rs. 927 lakhs, and of silver from Rs 20 lakhs to Rs. 43 lakhs.

Imports of Merchandise.

340. The following table shows the comparative importance of the staple articles in the import trade of Calcutta :— **Principal articles imported into Calcutta.**

	Average value for the 5 years, 1910-11 to 1914-15.	1915-16.	1916-17.	1917-18.	Percentage of proportion to total imports of merchandise.	DIFFERENCE BETWEEN 1916-17 AND 1917-18.	
						Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Cotton-goods	25,38,40,690	20,55,63,686	23,20,49,993	25,27,08,926	43·58	2,06,58,933	...
2. Sugar	5 63,03,046	7,28,10,353	6,50,95,047	7,17,93,818	12·38	66,98,771	...
3. Metals and ores	6,76,19,562	4,75,95,530	4,17,40 973	4,71,69,144	8·13	24,28,171	...
4. Machinery and millwork	2,24,02,445	2,02,21,960	2,46,36,366	1,95,59,381	3·37	...	50,76,985
5. Salt	59,98,447	1,45,21,156	1,34,71,639	4,87,57,829	8·23	52,86,190	...
6. Oils	1,83,32,367	1,89,79,256	2,06,46,111	1,59,95,544	2·76	...	46,50,567
7. Hardware, excluding cutlery and electroplated ware.	1,14,30,006	93,53,486	1,17,83,981	1,11,03,376	1·91	...	6,80,605
8. Chemicals and chemical preparations.	39,56,870	56,03,728	67,70,043	98,38,805	1·70	30,63,757	...
9. Tea-chests, entire or in sections.	34,71,959	71,03,074	75,37,322	84,66,384	1·46	9.29,062	...
10. Liquors, including methylated and perfumed spirits.	62,53,570	58,68,659	71,50.271	75,94,343	1·31	4,44,072	...
11. Paper and pasteboard ...	38,25,411	40,99,316	63,55,603	72,55,041	1·25	8.99,438	...
12 Spices	69,10,897	75,63,736	74,18,657	70,26,045	1·21	...	3,92,612
13. Instruments, apparatus and appliances.	59,13,961	55,61.112	74,33,874	66,04,407	1·11	...	8.29,467
14 Matches	27,17,575	37,88,793	35,48,686	61,12.097	1·05	25,63,411	...
15. Provisions and oilman stores.	60,63,964	60,25,796	71,49,461	58,60,656	1·01	...	12.88,805
16. Glass and glassware ...	50,42,211	41,01,817	57,26,708	56,20,747	97	...	1,05,961
17. Building and engineering materials.	30,79,165	42,62,326	35,03,897	53,39,231	·92	18,35,334	...
18. Tobacco	21,51,248	31,71,646	42,20,703	53,17,831	·92	10,97,123	..
19. Rubber	13,01,809	46,52,691	40,82,993	48,24,458	·83	7,41,465	...
20. Articles imported by post	28,63,267	29,49,789	44,32,604	45,59,764	·79	1,27,160	...
21. Drugs and medicines (excluding chemicals and narcotics).	38,54,527	44,79,282	50,40,322	41,63,334	·78	...	8,76,988
22. Paints and painters' materials.	33,04,482	28,25,468	37,35,670	40,47,964	·70	3,12,294	...
23. Motor-cars and motor-cycles and parts thereof.	37,64,116	41,83,217	69,33,753	35,05,934	·60	...	34,27,824
24. Woollen goods	74,83,734	26,89,286	37,05,789	32,34,212	·56	...	4,71,577
25. Haberdashery and millinery.	35,28,914	23,14,559	31,82,000	24,26,298	·42	...	7,55,702
26. Railway plant and rolling stock.	2,56,41,355	1,22,32,440	43,43,607	21,73,201	·37	...	21,70,406
27. Belting for machinery ...	8,74,632	14,92,153	12,66,718	20,96,883	·36	8,3 ,1 5	...
28. Soap	14,49,713	18,61,257	19,62,182	19,71,397	·34	9,2[illegible]	...
29. Dyeing and tanning substances.	16.97,083	9,01,383	14,23,330	18,95,587	·33	4,72,257	...
30. Stationery (excluding paper).	15,66,040	16,58,904	22,41,128	18,73,283	·33	...	3,67,845

The important imports are separately dealt with in the subjoined paragraphs :—

341. The yardage of all kinds of piece-goods declined by 21 per cent. from 976 millions to 766 millions, grey goods accounting for a decline of 176 millions or 27 per cent. to 487 millions and white goods of 25 millions or 12 per cent. to 188 millions. Coloured goods decreased by 8 millions or 8 per cent. to 99 millions. British grey goods showed the greatest fall, and the Japanese goods also fell by 9 per cent. to 18·5 million yards. The value of cotton-goods rose, owing to higher prices, by 10 per cent. to Rs. 22·86 crores. **Cotton manufactures.**

Imports of grey yarns declined in value from Rs. 40·5 lakhs to Rs. 36·7 lakhs or by 9 per cent. and in weight from 3·49 million to 1·95 million lbs. or by 44 per cent. The most noticeable decrease was in medium counts between 26 S. and 40 S. which was partly made good by larger production of Indian yarn of these counts. The exceptionally high prices of cotton-goods were partly accounted for by the dearness of English yarns, owing to the high price of American cotton. Imports of coloured fancy yarns also declined by 15 per cent. to 3½ million lbs., but the value rose by 27 per cent. to Rs. 75·8 lakhs.

342. The total imports of refined sugar increased by 26 per cent. from 3,687,025 cwts. to 4,631,698 cwts. in quantity and by 15 per cent. from Rs. 603·32 lakhs to Rs. 694·80 lakhs in value. The increase was entirely due to larger imports from Java, Bombay and Karachi having received a part of their supply through Calcutta by rail. A large portion of the shipments came *vid* Singapore as the Conference rates of freight direct from Java to India ruled high. Imports from Japan increased from 7,200 cwts. to 20,276 cwts., owing to the plentiful tonnage and the consequent low rate of freight. The United States of America supplied 2,790 cwts. worth Rs. 60,827, which were earmarked for the Imperial Tobacco Company. Imports from Mauritius **Sugar.**

dropped from 142,494 cwts. to 14,925 cwts., owing partly to the Sugar Commissioner taking a large portion of the crop and partly to the prohibition of direct exchange transactions between India and the Colonies. The average market price for Java refined sugar was Rs. 14-15-7 and of Mauritius sugar Rs. 18-9-0, as against Rs. 16-5-3 and Rs. 17-0-6 per cwt., respectively, in the previous year. Imports of molasses declined to less than half the quantity imported in the previous year, owing to high rates of freight and insurance charges.

Metals and ores.

343. A very serious decline in the importation of metals took place in the year of report. The total tonnage fell by 33 per cent., but owing to the rise in prices values rose by 5 per cent. Forty-four per cent. of the imports came from the United Kingdom, 42 from the United States, 9 from Japan and 2 from Australia. Only 101 tons of pig iron were imported. In wrought iron the receipts were the lowest recorded since 1886-87. The United Kingdom sent 31,039 tons, valued at Rs. 1·44 lakhs, a fall of 62 per cent. which was mostly made good by large imports from the United States, namely, 31,341 tons, valued at Rs. 1·71 lakhs. All the descriptions were received in reduced quantities, excepting sheets and plates, not galvanized or tinned, and iron wire. Tea lead from the United Kingdom and Ceylon, quicksilver from the United Kingdom and Japan, tin from the Straits, and spelter from Japan, the Straits, and the United Kingdom showed considerable improvements.

Machinery and millwork.

344. Imports of machinery and millwork, excluding railway materials, fell by 20 per cent. from Rs. 2·46 lakhs to Rs. 1·96 lakhs. Sixty-seven per cent. of the imports, valued at Rs. 1·32 lakhs, came from the United Kingdom, recording a fall of 42 per cent., while the United States sent Rs. 49·81 lakhs or 25 per cent., showing three times the value of the preceding year. Electric machinery fell by 15 per cent. to Rs. 17·39 lakhs and *prime movers* by 26 per cent. to Rs. 12·77 lakhs. Jute mill machinery dropped by 35 per cent. to Rs. 69·18 lakhs, tea machinery by 41 per cent. to Rs. 11·71 lakhs, sewing and knitting machines by 57 per cent. to Rs. 6·83 lakhs, and cotton machinery by 39 per cent. to Rs. 4·48 lakhs. Only machinery for workshops and foundries and also paper-mills and typewriters recorded increases.

Salt.

345. The total imports during the year and the stocks at the *golas* at the close of the year were lower than in former years, owing to the war and the scarcity of tonnage. The principal supplying countries were Egypt, Port Said (115,180 tons), Aden (95,684 tons), Italian East Africa—Massowah (38,414 tons), Spain (24,717 tons) and the United Kingdom (11,763 tons). The stocks at the *golas* fell to a little over 11,000 tons in October, when prices rose to Rs. 450 per 100 maunds (ex-duty) against Rs. 155 at the beginning of the year, while Massowah and Port Said salt was quoted at Rs. 501 in November. Fresh imports brought the prices down to Rs. 350 in December and to about Rs. 300 in January. In February Government fixed maximum prices, varying from Rs. 248 to Rs. 239, according to the country of origin of the salt.

Mineral oil.

346. There was again a considerable shrinkage in the imports of mineral oils. Of Kerosene oil the United States supplied $8\frac{1}{3}$ million gallons or 49 per cent. less than in 1916-17, Borneo 16,250 gallons as against $3\frac{1}{2}$ million gallons in the previous year and Java 8,574 gallons. In lubricating and batching oils, the imports of which were 18 per cent. smaller than in 1916-17, the share of the United States was 69 per cent., of Borneo 24 per cent. and of the United Kingdom 7 per cent. Imports of fuel oils, chiefly from Borneo, increased by 8 per cent. No foreign petrol was imported during the year. The deficiency in foreign oil was partially made good by larger exports from Burma to India proper of Kerosene oil ($51\frac{1}{4}$ million gallons, an increase of 4 per cent. over 1916-17, valued at Rs. 188·74 lakhs, an increase of 8 per cent.) and of lubricating and batching oil ($4\frac{2}{3}$ million gallons, an increase of 8 per cent.); but the imports of petrol amounting to $1\frac{2}{3}$ million gallons, valued Rs. 27·76 lakhs, were almost stationary.

Hardware and cutlery

347. The total trade was valued at Rs. 1·17 lakhs, of which implements and tools accounted for Rs. 17·95 lakhs, agricultural implements Rs. 9·51 lakhs, enamelled ware Rs. 5·97 lakhs, and cutlery Rs. 4·91 lakhs. The United Kingdom supplied goods worth Rs. 51·36 lakhs or 44 per cent., the United States Rs. 39·32 lakhs or 34 per cent. and Japan Rs. 21·08 lakhs or 18 per cent.

Chemicals and Chemical Preparations.

348. The value of chemicals rose from Rs. 67·7 lakhs to Rs. 98·34 lakhs, or an increase of 45 per cent. This increase was largely due to the higher prices of bleaching materials, caustic soda and carbonate of soda. The value of bleaching materials rose by 16 per cent. to Rs. 12·48 lakhs, of which 67 per cent. came from Japan and 27 per cent. from the United Kingdom. More than half the quantity of caustic soda (64,485 cwts., an increase of 126 per cent.) came from the United Kingdom, it being largely used in soap-making and oil-refining. Practically the whole quantity of carbonate of soda (502,216 cwts.) was imported from the United Kingdom.

Exports of Merchandise.

Foreign Trade.

349. The following table shows the values of the staple articles of the export trade of Calcutta and their comparative importance :—

	Average for the 5 years, 1910-11 to 1914-15.	1915-16.	1916-17.	1917-18.	Percentage of proportion to total merchandise exported.	DIFFERENCE BETWEEN 1916-17 AND 1917-18.	
						Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Jute manufactures ...	21,91,80,723	37,90,44,794	41,49,73,870	42,68,57,646	51·82	1,18,83,776	.....
2. Tea	9,63,18,991	14,66,73,367	14,66,23,560	13,13,86,546	15·94	1,47,59,986	.....
3. Jute, raw	19,58,81,381	14,58,91,502	15,35,86,740	6,24,47,258	7·58	.....	9,11,39,482
4. Lac	1,92,77,656	1,71,23,260	2,79,83,544	3,74,54,008	4·55	94,67,464	.....
5. Hides and skins, raw ...	7,23,49,485	6,27,37,202	6,80,64,288	3,48,03,066	4·23	.....	3,32,61,222
6. Opium	5,36,03,504	1,47,01,840	2,69,65,180	2,41,77,345	2·92	31,12,165	.....
7. Grain, pulse and flour ...	7,69,14,056	2,04,25,143	1,52,51,577	1,92,16,034	2·33	39,64,457	.....
8. Seeds	4,95,28,313	1,59,31,122	1,85,52,787	96,98,046	1·18	.....	88,54,741
9. Indigo	32,11,545	87,93,207	99,62,288	94,80,865	1·15	.....	4,82,123
10. Cotton, raw	1,20,18,621	1,16,30,147	1,03,95,449	82,97 355	1·01	.....	20,98,094
11. Mica	30,40,929	26,83,198	44,63,689	78,22,994	·94	33,59,305	.....
12. Metals and ores	41,89,949	57,58,846	1,19,45,448	76,57,579	·93	.....	42,57,869
13. Saltpetre	34 80,265	57,88,643	64,91,092	64,62,174	·78	.....	28,918
14. Oils	25,52,845	29,67,214	25,19,991	57,84,473	·70	32,64,482	.....
15. Cotton, twist and yarn ...	22,76,260	9,70,442	5,45,269	27,32,339	·33	21,83,070	.....
16. Articles (not specified) exported by post.	8,03,074	7,14,365	21,50,038	26,60,876	·32	5,10,838	.....
17. Dyeing and tanning substances—other than indigo.	22,69,137	30,81,612	29,23,252	25,69,617	·31	.....	3 58,635
18. Hemp, raw	42,51,093	51,53,353	69,71,095	25,00,642	·30	.....	44,70,453
19. Coal, coke and patent fuel.	72,81,212	73,62,405	75,11,052	23,52,002	·29	.....	51,59,050
20. Manures	23,81,498	20,81,534	23,38,881	23,23,359	·28	.....	15,522

The total value of Indian merchandise exported fell by 11 per cent., and that of foreign merchandise re-exported by 31 per cent. The latter decrease was largely due to smaller exports of metals and machinery and the stoppage of the trade in raw wool, in spite of an increase under raw hides.

The more important exports are specially noticed in the following paragraphs :—

Raw Jute and Jute manufactures.

350. The main feature of the trade in raw jute was a considerable decrease (47 per cent.) in the quantity exported, which amounted to 271,250 tons, the lowest on record since 1877-78. The exports were prohibited to all destinations except under a license granted by the Chief Customs Officer at the place of export. The value of the exports decreased by 59 per cent. to Rs. 6,25 lakhs. In the year under review the exports to the United Kingdom amounted to only 61,000 tons, as against 234,000 tons in the previous year, and 302,000 tons, the pre-war quinquennial average. More than one-third of the total quantity exported went to the United States, which took for the first time the lead with 94,000 tons. France, Spain and Italy took less, while Brazil and Japan imported greater quantities. The yield of the crop as estimated in the forecast was 6 per cent. above that of the previous season, *viz.*, 1,590,000 tons or 8,904,000 bales. During the season 1916-17 the mills consumed twice as much jute as was exported from India. The mill consumption in 1917-18 is estimated at 57 lakhs of bales, and exports (July 1917 to June 1918) were over 17 lakhs of bales. Thus, mills are now consuming over

three times as much jute as is being exported. Calcutta exports 60 per cent. of the production, which constitutes about 52½ per cent. of the world's output of jute goods.

One of the chief features of the trade in 1917-18 was the rise in the price of the manufactured goods. The value of the exports, notwithstanding the decrease in the quantities shipped, rose by 3 per cent. to nearly Rs. 43 crores, a figure nearly double the average pre-war exports. The increase in value was more than accounted for by an increase of Rs. 3 crores in the value of gunny-cloth exported, which amounted to Rs. 23 crores. Shipments of gunny-cloth to the United States, France and Canada increased, while there was a decrease in the exports to the United Kingdom, Russia and the Argentine Republic. Two-thirds of the total quantity of gunny-cloth exported went to the United States. The value of gunny-bags exported decreased by nearly Rs. 2 crores to Rs. 19 crores. Among the principal countries importing the bags, the United Kingdom, Australia, France, China and Chile took less than in the previous year, while there were larger exports to the United States, the Argentine Republic, Japan, Egypt and South Africa. There were practically no exports to Russia. The coastwise exports from Bengal were chiefly gunny-bags, amounting to 34 million bags, of which 97 per cent. went to Burma and 2 per cent. to Madras. Difficulties in the freight and exchange prevented free exports of jute manufactures, with the result that the Bengal mills worked only 5 days, instead of 6 days, per week during the first nine months of the year, full time working being resumed in January, 1918.

Tea.

351. The year's trade in tea was of special interest. The quantity exported was the highest on record—279 million lbs.—an increase of 38 per cent. over the preceding year and of as much as 39 per cent. above the pre-war average. The value of the exports amounted to Rs. 13·13 crores. The average prices realised in Calcutta at the auction sales during 1917-18 was 7*a*. 3*p*. per lb. as against 8*a*. 8*p*. in 1916-17 and was the lowest since 1912-13. The difficulties in obtaining tonnage were the controlling factor in the trade of the year. The Food Controller of His Majesty's Government formulated a scheme for purchasing and shipping Indian tea between 1st November 1917 and 31st May 1918, and this relieved the Indian market during the latter half of the season. Bengal accounted for 90 per cent. of the total shipments from India. The exports to the United Kingdom were higher by 42 million lbs. or 19 per cent. than those in 1916-17. Java has been a keen rival of India in the American market. The prohibition of imports of tea from Java into the United Kingdom and Australia led to increased imports of Java tea into America. The depression in the trade with Australia during 1916-17 was made good in the year of report. The increase in the demands from South Africa was a new feature of the trade. Persia almost trebled her requirements, and shipments to the Persian Gulf Ports, mainly for the Army, also increased. There was a suspension in the usual demands from Russia which took only 8 million lbs. or only 27 per cent. of the pre-war average. In 1917 only 3 million lbs. of Indian tea were re-exported from the United Kingdom, as against 22 millions in the pre-war year.

Lac.

352. Under a scheme introduced in January 1917, with the object of providing the British Government with the shellac required for munition purposes, of suitable quality, at a fixed f. o. b. price of Rs. 42 per maund, all shippers guaranteed to Government 20 per cent. of their shipments on private account. This ensured larger supplies to the United Kingdom. The total exports were smaller by 16 per cent., but as a result of smaller crops and a great demand the value rose by 34 per cent. Shellac and button lac constituted 91 per cent. of the whole. Exports to the United Kingdom were 16 per cent. more, but to the United States of America 20 per cent. less, than in 1916-17. The average declared value of all descriptions of lac was Rs. 117 per cwt., as against Rs. 73-8 in 1916-17.

Raw Hides and Skins.

353. The quantity exported fell by 46 per cent., owing to the restrictions on exports as well as to tonnage difficulties. The decline in hides amounted to 58 per cent. in quantity and 63 per cent. in value, while the exports of skins rose in volume by 3 per cent., but values thereof were lower by 20 per cent. as compared with 1916-17. Ninety-seven per cent. of the exports of

hides to Italy was on behalf of the Italian Government. The shipments to the United States of America were reduced to 81 per cent. in volume, and to the United Kingdom to 49 per cent. Ninety-seven per cent. of raw skins exported was consigned to the United States of America.

Indigo.

354. The indigo trade was once more without restrictions, and the total production of indigo in 1917-18 was estimated at 87,800 cwts., as against 95,700 cwts. in the previous year. The exports amounted to 25,200 cwts., an increase of 36 per cent., as compared with 1916-17. The United States absorbed 69 per cent. of the total exports. Japan also increased her demands from 91 cwts. in 1916-17 to 575 cwts., while shipments to Persia and Egypt decreased. The United Kingdom considerably increased her demands of Indian indigo on the outbreak of war, but her demands were gradually reduced from 7,230 cwts. in 1915-16 to 4,252 cwts. in 1917-18, this decrease being largely due to the development of the synthetic colour industry in that country.

Raw Cotton.

355. In the year under review, the exports of raw cotton decreased 43 per cent. in quantity, but owing to the higher range of prices the value receded to 20 per cent. only. The largest recipient was Russia, which took in the 3 months May to July 28 per cent. of the Calcutta exports, Japan absorbed 19 per cent., the United States 21, France 10 and the United Kingdom 8 per cent. Scarcity of tonnage and high prices were the main factors influencing the smaller shipments from this port.

Mica.

356. Owing to its excellent insulating properties, Indian mica is in considerable demand for munitions purposes. A scheme of purchase on Government account was brought into force in June 1916. Government assistance was also given, where necessary, for the development of areas hitherto untouched or not yet scientifically developed. The shipments, entirely to the United Kingdom, amounted to 55,946 cwts., valued at Rs. 78,23 lakhs.

Metals and Ores.

357. The total quantity exported fell from 338,230 to 230,864 tons or by 32 per cent., but owing to better prices realized, the value declined by only 3 per cent. from Rs. 154 to 149 lakhs. Shipments of manganese ore fell by 24 per cent. from 233,337 to 178,323 tons and in value from Rs. 55 to 41 lakhs or by 27 per cent. All countries took less with the exception of France and Japan. The United Kingdom took 112,675 tons, the United States 27,251 tons, France 19,140 tons and Japan 17,557 tons. The exports of pig iron also fell from 102,249 to 49,774 tons or by 51 per cent. and in value from Rs. 53 to 30 lakhs or 44 per cent. Japan absorbed 79, Australia 13 and Hong Kong 6 per cent. The production of iron and steel at the two premier works, *viz.*, the Tata and the Bengal Iron and Steel Works, was 731,200 tons, as compared with 630,000 tons in 1916-17, consisting mainly of pig iron (251,000 tons), steel (174,000 tons), and blooms and billets (149,000 tons).

Saltpetre.

358. The exports of saltpetre or nitrate of potash continued to be restricted and shipments were slightly below those of the previous year. The United Kingdom absorbed 86 per cent. of the total trade—the balance, 45,528 cwts., was made up of exports to Mauritius for fertilising purposes, to the United States and Japan for munitions purposes and to Australia for meat-curing.

Coal.

359. The exports abroad of coal by sea amounted to nearly 254,500 tons, a decrease of 69 per cent., owing to Government requisitions and scarcity of tonnage. All foreign countries took less, and in respect of Ceylon the decline was 71 per cent. Owing to freight difficulties the coast wise exports from Bengal decreased to 221,000 tons from 501,000 tons in 1916-17, 91 per cent. being sent to Burma. The quantity sent by rail increased by 15 per cent. from 6,97 to 8,01 million tons, of which 43 per cent. went to Bombay, 15 to the United Provinces, 13 to the Punjab and 7 to Madras. The exports of bunker coal from Bengal were smaller, owing to a smaller number of vessels calling at the port. The despatches by Government vessels and hired transports also fell from 479,227 tons in 1916-17 to 306,111 tons, or by 36 per cent. The production in 1917 was estimated at 18,213,000 tons, as against 17,254,000 tons in 1916. In the latter half of 1917 Desharghur coal was quoted at Rs. 6 per ton in Calcutta, as compared with Rs. 5-1-4 in the corresponding period of 1916.

Distribution of the import and export trade of Calcutta.

360. The following table shows how the trade of Calcutta with foreign countries was distributed in the stated periods (in lakhs of rupees) :—

	IMPORTS.						EXPORTS.					
	PRE-WAR AVERAGE.		1916-17.		1917-18.		PRE-WAR AVERAGE.		1916-17.		1917-18.	
	Rs. (lakhs).	Per cent.	Rs. (lakhs).	Per cent.	Rs. (lakhs).	Per cent.	Rs. (lakhs).	Per cent.	Rs. (lakhs).	Per cent.	Rs. (lakhs).	Per cent.
United Kingdom	4,098	70·9	3,576	63·8	3,332	57·5	2,320	27·1	2,958	31·9	1,966	23·8
Other British Possessions.	224	3·8	291	5·0	374	6·4	1,518	17·7	1,233	13·3	1,640	19·7
Java ...	517	8·9	625	11·1	719	12·4	121	1·4	159	1·7	181	2·2
United States ...	157	2·7	366	6·5	512	8·8	1,463	17·1	2,365	25·5	2,637	31·9
Japan ...	127	2·2	423	7·5	603	10·4	146	1·7	212	2·3	251	3·0
Italy ...	38	·6	59	1·0	43	·7	205	2·4	238	2·6	176	2·1
France ...	37	·6	30	·5	22	·4	311	3·6	319	3·4	284	3·4
Russia ...	2	...	24	·4	13	·2	170	2·0	540	5·8	72	·9
South America	...	...	3	...	4	...	344	4·0	496	5·4	398	4·8
TOTAL (including other countries).	5,775	100	5,608	100	5,798	100	8,547	100	9,267	100	8,269	100

The preoccupations of the United Kingdom in the war naturally affected her interest in Calcutta's trade. Her sales of cotton-goods advanced from Rs. 20,81 to 22,86 lakhs. Other noticeable increases were under chemicals (mostly carbonate of soda)+Rs. 41 lakhs, building materials (chiefly cement)+Rs. 26 lakhs and tobacco+Rs. 40 lakhs. On the export side shipments of raw jute declined from Rs. 7,29 to 1,43 lakhs, jute manufactures from 7,74 to 4,84 lakhs, seeds (chiefly linseed) from 1,30 to 7 lakhs and raw hemp from Rs. 48 to 14 lakhs. Exports of tea advanced from Rs. 8,71 to 9,76 lakhs, mica from Rs. 32 to 78 lakhs and lac from 33 to 65 lakhs. Imports from France fell by Rs. 8 lakhs, due to small deficits under spirits, motor-cars, silk goods, clocks and watches. Under exports the decreases were under raw jute (−Rs. 75 lakhs) and gunny-bags (−Rs. 35 lakhs), partly set off by increases under gunny-cloth (+Rs. 69 lakhs). Russia's sales of tea chests were restricted from Rs. 22 to 13 lakhs and Italy's imports contracted to Rs. 43 lakhs, owing to her inability to supply any sulphur. The export trade fell, owing to a smaller trade in raw jute (−Rs. 62 lakhs in the case of Italy and −Rs. 468 lakhs in the case of Russia). The imports from the United States showed increases under metals and ores (+Rs. 69 lakhs) and hardware (+Rs. 25 lakhs), while Kerosene oil decreased by Rs. 38 lakhs. The shipments of hides dropped from Rs. 2,97 to 50 lakhs, skins from Rs. 213 to 177 lakhs and raw jute from Rs. 314 to 204 lakhs, but shipments of jute-cloth advanced from Rs. 12,17 to 17,19 crores, lac from Rs. 2,19 to 2,73 lakhs, indigo from Rs. 34 to 59 and tea from Rs. 15 to 81 lakhs. Java increased her supply of sugar from Rs. 617 to 709 lakhs and raised her orders for gunny-bags by Rs. 12 lakhs and manures by Rs. 8 lakhs. Japan increased her imports under grey piece-goods (+Rs. 23 lakhs), metals (+56 lakhs), matches (+23 lakhs) and wooden tea-chests (+24 lakhs). Under exports she largely received jute-bags (+53 lakhs) and seeds, chiefly rape (+Rs. 31 lakhs).

II.—FRONTIER TRADE.

[Report on the Frontier Trade of Bengal for 1917-18.]

Total Trade.

361. The total value of the trade with the adjacent States of Sikkim, Nepal, Tibet and Bhutan in the year ending 31st March 1918 amounted to Rs. 146·96 lakhs, exclusive of the movements of treasure, the registration of which continued to be defective. This figure represents an increase of Rs. 25·94 lakhs or 21·4 per cent.

Imports into Bengal.

362. Of the total value of the imports into Bengal (Rs. 115 lakhs), about 40 per cent. came from Nepal, 30 per cent. from Tibet, 25 per cent. from Sikkim and the balance, 5 per cent., from Bhutan. The principal articles of import into Bengal were :—from Nepal, animals living (Rs. 20·51 lakhs), fruits, vegetables and nuts (Rs. 21·50 lakhs) and provisions, chiefly

ghee (Rs. 2·31 lakhs); from Tibet, raw wool, which constitutes the main staple of import (81,183 mds. valued at Rs. 27 lakhs), animals living, chiefly horses, ponies and mules (Rs. 4·26 lakhs), skins of sheep, goats and other small animals (Rs. 3·40 lakhs), and yaks' tails (Rs. 36,000); from Sikkim, fruits, vegetables and nuts (Rs. 13·48 lakhs), living animals (Rs. 4·81 lakhs), grain and pulse (Rs. 3·52 lakhs) and spices (Rs. 3·44 lakhs) and from Bhutan animals living (Rs. 2·91 lakhs).

Exports from Bengal.

363. Of the total exports (Rs. 31 lakhs), 45 per cent. went to Tibet, 35 per cent. to Sikkim, 13 per cent. to Nepal and 7 per cent. to Bhutan. The exports from Bengal to Tibet consisted mainly of metals and manufactures thereof (Rs. 3·25 lakhs), cotton piece-goods (Rs. 2·69 lakhs), wool manufactured (Rs. 1 lakh), and silk manufactures (Rs. 89,000); to Sikkim cotton manufactures (Rs. 1·78 lakhs), grain and pulse, chiefly rice (Rs. 1·70 lakhs) and metals and manufactures thereof (Rs. 55,000); to Nepal cotton manufactures (Rs. 2·30 lakhs) and salt (Rs. 32,000). The principal commodities exported to Bhutan were cotton piece-goods, valued at Rs. 32,000 and betelnuts at Rs. 53,000.

III.—COASTING TRADE.

[Report on the Maritime Trade of Bengal for 1917-18.]

Coasting Trade.

364. The total value of the coasting trade of Bengal, including Government stores, amounted to Rs. 20·53 crores, as against Rs. 20·58 crores in the preceding year, a slight decrease of Rs. 5 lakhs. Imports of private merchandise fell away 10 per cent. from Rs. 12·9 crores to Rs. 11·6 crores, while the exports increased 13·7 per cent., due more to inflated values than to a greater volume, from Rs. 7·07 crores to Rs. 8·04 crores. The imports were smaller, being largely the results of restricted receipts of rice from Burma, of cotton twist and yarn and manufactures and salt from Bombay and Madras, and of cocoanut-oil from Madras, although there were larger movements of timber and mineral oil from Burma, raw cotton from Bombay and Madras and groundnuts from Madras. The increased exports were due to heavy shipments of foreign cotton-goods, wheat, flour and tea to Burma, of grain and pulse to Madras. Burma naturally continued to secure the largest share, Rs. 13·61 against Rs. 13·38 crores; but Madras had a higher percentage of improvement, the figures being Rs. 1·64 crores, as against Rs. 1·24 crores and transactions with Bihar and Orissa and the other Bengal outports increased slightly from Rs. 25 and Rs. 11 lakhs to Rs. 25·31 and Rs. 13·65 lakhs, respectively. The coasting trade with Western India was very poor, that with Bombay contracting from Rs. 49 to Rs. 15 lakhs and with Sind from Rs. 1·60 lakhs to Rs. 62,000 only.

IV.—TRADE BY RAILWAY AND RIVER.

[Report on the Trade carried by Railway and River in Bengal during 1917-18.]

Rail and River-borne Trade.

365. The quantity and value of the inland trade of Bengal are exhibited in the following table :—

	1913-14 (pre-war year).		1916-17.		1917-18.	
	Mds. (1,000).	Rs. (1,000).	Mds. (1,000).	Rs. (1,000).	Mds. (1,000).	Rs. (1,000).
Imports into Bengal including Calcutta, from other Provinces	196,102	58,28,18	182,885	69,41,14	157,189	83,63,69
Imports into Calcutta from the rest of Bengal.	135,852	59,28,04	107,935	61,01,23	92,328	58,54,16
Exports from Bengal including Calcutta to other Provinces.	66,138	49,72,48	106,185	62,91,13	98,974	73,18,36
Exports from Calcutta to the rest of Bengal.	41,519	40,26,96	37,822	41,44,97	33,681	41 67,48

The imports into Bengal, including Calcutta, were valued at Rs. 83 crores, of which 43 per cent. came from Bihar and Orissa, 17 per cent. from Assam, 15 per cent. from the United Provinces, 10 per cent. from Bombay, 6 per cent. from Madras, 4 per cent. from the Central Provinces and Berar and the balance, 5 per cent., from other provinces. Of the total exports (Rs. 73 crores), 27 per cent. went to Bihar and Orissa, 19 per cent. to the United Provinces, 16 per cent. to Bombay, 12 per cent. to Assam, 11 per cent. to the Punjab, 3 per cent. to Central Provinces and Berar and the remainder to other provinces.

Imports by Rail and River into Bengal.

366. The principal articles of import into Bengal, including Calcutta, were from Bihar and Orissa, railway materials (Rs. 18 crores), coal and coke (Rs. 3·5 crores), iron and steel (Rs. 2·6 crores), grain and pulse (Rs. 1·9 crores), lac (Rs. 1 crore), oilseeds (Rs. 1 crore), hides and skins (Rs. 93 lakhs) and jute (Rs. 88 lakhs); from the United Provinces of Agra and Oudh, grain and pulse, chiefly wheat (Rs. 2·9 crores), opium (Rs. 2 crores), oilseeds (Rs. 1 crore), lac (Rs. 1 crore), hides and skins (Rs. 73 lakhs), ghee (Rs. 61 lakhs), saltpetre (Rs. 49 lakhs) and indigo (Rs. 44 lakhs); from Assam, tea (Rs. 10 crores), grain and pulse (Rs. 70 lakhs), jute (Rs. 48 lakhs), and hides and skins (Rs. 39 lakhs); from the Central Provinces and Berar, grain and pulse (Rs. 89 lakhs), raw cotton (Rs. 81 lakhs) and metallic ores (Rs. 39 lakhs); from the Bombay Presidency, cotton manufactures (Rs. 6·9 crores), raw cotton (Rs. 49 lakhs); and from the Madras Presidency, cotton manufactures (Rs. 1 crore), pepper (Rs. 51 lakhs) and groundnuts (Rs. 50 lakhs).

Exports by Rail and River from Bengal.

367. The exports from Bengal, including Calcutta, to Bihar and Orissa comprised mainly cotton manufactures (Rs. 7·5 crores), metals and manufactures thereof (Rs. 2·8 crores), railway materials (Rs. 1·5 crores), oils, chiefly Kerosene (Rs. 1 crore), sugar (Rs. 85 lakhs), grain and pulse (Rs. 76 lakhs), salt (Rs. 68 lakhs), spices (Rs. 47 lakhs), gunny-bags and cloth (Rs. 44 lakhs) and timber (Rs. 36 lakhs); to the United Provinces of Agra and Oudh, cotton manufactures (Rs. 4 crores), sugar (Rs. 1·9 crore), metals and manufactures thereof (Rs. 1 crore), oils, chiefly Kerosene (Rs. 94 lakhs) and gunny-bags and cloth (Rs. 87 lakhs); to Assam, cotton manufactures (Rs. 2 crores), metals and manufactures thereof (Rs. 1·5 crore), grain and pulse (Rs. 71 lakhs), sugar (Rs. 56 lakhs) and salt (Rs. 37 lakhs); to the Punjab, cotton manufactures (Rs. 3 crores), sugar and gunny-bags and cloth (Rs. 1 crore each), metals and manufactures thereof (Rs. 85 lakhs); while exports to the Central Provinces and Berar consisted principally of sugar (Rs. 47 lakhs), Kerosene oil (Rs. 29 lakhs) and gunny-bags and cloth (Rs. 27 lakhs).

PUBLIC WORKS.

Establishment.

Appointment of a permanent Second Chief Engineer.

368. Pending the result of an examination into the question of affording relief to the Public Works Department Secretariat by delegating powers to Superintending Engineers, the appointment of a Second Chief Engineer for this Presidency was sanctioned as an experimental measure by the Secretary of State for India, for five years from the 1st September 1913. Every endeavour was accordingly made to reduce work by such delegation of powers and by the curtailment of reports and returns, but any decrease of work effected by these measures was more than counterbalanced by the large increase of work consequent on the preparation of projects and estimates in connection with important irrigation drainage and waterway schemes and the heavy increase of work thrown on the Secretary in connection with matters relating to marine. An application was therefore made to the Government of India in January 1918 for the appointment of a permanent Second Chief Engineer for this Presidency to deal with questions relating to irrigation, drainage and waterways.

369. The report of the Public Works Department Reorganization Committee was received during the year. **Report of the Public Works Department Re-organization Committee.**

Accounts.

370. The total outlay of the year 1917-18 on works amounted to Rs. 1,26,94,479, of which Rs. 75,70,602 were spent by the Public Works Department and Rs. 51,23,877 by local authorities. Of the expenditure of Rs. 75,70,602 incurred by the Public Works Department Rs. 6,50,811 were spent on Imperial works, Rs. 66,23,217 on Provincial works and Rs. 2,96,574 on local and contribution works.

Buildings.

IMPERIAL CIVIL WORKS.

371. The five old salt *golas* at Chittagong which were transferred to the Port Commissioners, Chittagong, were again taken over by the Public Works Department for maintenance. **Salt.**

372. In order to reduce the strain on the wall of the Mint Building at Calcutta, the plumber blocks for the oscillating lever connecting the vacuum pipe for the stamping machine, formerly supported on cast-iron brackets bolted on the wall, were refixed on steel joists standards. **Mint.**

373. A motor-car repairing-shed with a petrol store and cleaning-room was constructed at the Telegraph Storeyard, Dhullanda, and the northern and southern portion of the compound roads were renewed. A wrought-iron railing was provided in front of the Post and Telegraph Office at Alipore ; additions and alterations were made in the Post Office and Postmaster's quarters at Kurseong and improvements carried out in the combined Post Office at Dinajpur. **Post and Telegraph offices.**

The following works were in progress :—

The construction of a two-storied building in the compound of the Telegraph Storeyard, Dhullanda ; improvements to the Post Office and Postmaster's quarters at Bogra ; enlargement of the Sub-Post Office at Saidpur ; and additions and alterations to the Post and Telegraph Offices at Khulna, Kumarkhali, Chakdah and Krishnagar.

374. A residence for the Settlement and Assistant Settlement Officers at Jessore was completed and the construction of Settlement Buildings at Bankura was in progress. **Settlement buildings.**

PROVINCIAL CIVIL WORKS.

375. The following works were completed :—Improvements to the Treasuries at Dinajpur and Rangpur ; additions to and alterations in the Mission House, Pabna, for use as a Magistrate's Court ; additions and alterations in the Munsif's Court at Uluberia ; provision of a better type of latrine for the use of the Civil Court staff at Khulna and additions to the Subdivisional Court at Khulna. **Revenue and Judicial Courts.**

The following works were in progress :—Provision of a latrine connected with the Criminal Court, Howrah ; extension of the Sub-Treasury Guard House and improvements to the Subdivisional Court, Nator ; addition of an upper-storey to the Treasury Guards' quarters in the Sub-Treasury at Siliguri ; additions and alterations to the Collectorate at Barisal ; construction of a Treasury Guard's barrack and cook-shed in the Subdivisional Court compound at Tamluk ; additions to the Sub-Treasury Guards' quarters at Bongong ; and the extension of the Collector's Court at Suri.

376. The premises, No. 17, Riverside Road, Barrackpore, were acquired as an official residence for the Subdivisional Officer, Barrackpore. A Munsif's residence was constructed at Uluberia. **Subdivisional Officers' and Munsifs' residences.**

377. The Circuit House at Pabna was dismantled as the site was being rapidly eroded by the River Ganges and the destruction of the buildings was imminent. **Circuit Houses.**

Excise.

378. The following works were completed :—Providing lamp-posts in the Ganja compound at Naogaon ; fencing the compound of the Bonded Warehouse at Lalmonirhat ; a well in the Liquor Warehouse at Laksan ; and an office for the Sub-Inspector of Excise at Katwa.

The conversion of the Kola Inspection Bungalow into a Warehouse and *Ganga Gloa* was in progress.

Residences for Local Government.

379. The construction of an office for the Private and Military Secretaries to His Excellency the Governor of Bengal adjacent to Government House, Darjeeling, was in hand and nearly completed at the close of the year. Improvements in the water-supply and sanitary arrangements of Government House, Dacca, were carried out.

Residences for Government Officials.

380. A residence for the Executive Engineer, Duars Road Division at Jalpaiguri, was constructed. Raising the land acquired for Ministerial officer's quarters at Manikganj was nearly completed.

Jails.

381. The following works were completed :—Extensions to the Warder's barracks of the Sub-Jails at Natore, Naogaon, Serajganj ; additions to and alterations in the Sub-Jail at Serajganj ; additions to the Warders' quarters in the Pabna Jail, and in the Sub-Jail at Nilphamari ; a Jail Hospital at Dinajpur ; extension of the Warders' quarters in the Sub-Jail at Katwa in the Burdwan district ; an additional barrack for the Warders in the District Jail, Suri ; and a Ward for the Treatment of Tuberculosis Cases in the District Jail at Suri. The principal additions and alterations in the Comilla Jail which have been in progress for some years were completed, the works remaining incomplete being the quarters for the Assistant Jailor and Doctor and water-supply arrangements for the double-storied barrack ; and the following other works were in progress :—

The Jail Hospital at Jalpaiguri and the masonry compound wall, gate building, and entrance gate for the Sub-Jail at Gopalganj.

Police.

382. The Police office with residential quarters for the Assistant and Deputy Superintendents at Lalbazar, Calcutta, which was started on the site of the old buildings was nearly completed and the electrical work was commenced. Quarters for two Sub-Inspectors of the police-station at Baraset were erected. The police-station at Amdanga in the Civil Subdivision at Baraset was completed ; construction of a Town out-post at Gouripore was in progress ; an exchange of land between Government and the Port Commissioners for the diversion of the pathway leading into the Morgue compound at Mominpore was effected ; improvements were made to the Guard House attached to the Police Magazine at Alipore.

Land was acquired for the construction of a Police Hospital at Bhowanipore.

The quarters for the Sub-Inspector at Panchla police-station were completed ; additions to and alterations in the Reserve Police Barrack at Howrah to convert into a Police office were started ; additions and alterations to the electric installation at No. 13, Elysium Row occupied by the Criminal Investigation Department were completed.

The following works were also completed :—

Police investigating centres at Kushmandi in the Dinajpur district, Atghoria in the Pabna district, Gangachara and Bhurangamari in the Rangpur district, and Harishchandrapur and Nachole in the Malda district ; an armoury for the Police Lines at Pabna ; additions and alterations in the old Circuit House at Pabna to convert it into a Police office ; a Segregation Ward for the Police Hospital at Jalpaiguri ; a barrack for the town out-post at Singamari, Darjeeling ; a two-storied out-post at Jalapahar ; an out-post near Dow Hill School at Kurseong ; and a Circle Inspector's office attached to the Court at Siliguri.

The following works in connection with the Police Training College at Sardah in the Rajshahi district were completed :—

Conversion of factory buildings Nos. III, IV and V into barracks ; a residence for the Assistant Principal ; a water-supply system for the quarters of the instructing staff ; drains round the staff quarters ; and the rearrangement and extension of the water-supply to the Central Training College, and a Segregation Ward. The conversion of factory building No.-2 A into

cook-sheds and three new kitchens were nearing completion. The large tank was deepened to 12 feet.

Investigating centres at Nandanale, Niamatpur in the Rajshahi district and at Pirganj and Gangarampur in the Dinajpur district were nearing completion.

A residence for the Deputy Inspector-General of Police, Rajshahi Range, at Jalpaiguri, Police buildings at Tetulia in the Jalpaiguri district, at Kishoreganj, Fulbari, Kaunia and Rahumari in the Rangpur district; at Gabtali and Joypurhat in the Bogra district; additions and alterations to the Police Lines at Rangpur; investigating centres at Tapan in the Dinajpur district, Chatmohar in the Pabna district, Pabna and Raninagar in the Rajshahi district and improvements to the elephant-shed at Santrabari, Buxa, were in progress. Land was acquired for investigating centres at Gurudaspur and Mohanpur Khurd in the Rajshahi district.

The construction of Reserve Police Lines at Chittagong was finally completed during the year.

The following Police works were completed :—

Investigating centres at Tangibari in the Dacca district and Nabinagar in the Chittagong district.

For the Constables' Training School at Dacca—filling a tank and raising the compound; constructing a combined magazine, armoury and guard-room and conversion of buildings into quarters for officers.

Family quarters for the junior Sub-Inspector and head-constables at Muktagacha, quarters for the armed Inspectors at Khulna; Police buildings at Fultala; quarters for two Sub-Inspectors and two head-constables at Onda; out-houses and Sub-Assistant Surgeons' quarters for the hospital at Bankura; 2 sets of Sub-Inspectors' quarters, one set of Assistant Surgeons' quarters; 2 sets of head-constables' quarters and hospital servants and cooks' quarters in the Reserve Police Lines at Burdwan, an additional hospital at Chinsura; Police buildings at Keshabganj town out-post in the Burdwan district; armed Inspectors' quarters at Bankura; and the levelling and draining of lowland and re-excavating tanks in the compound of the Reserve Police Lines at Jessore.

The following works were in progress :—

Quarters for 2 Sub-Inspectors and a head-constable at Basail, a residence for the Assistant or Deputy Superintendent of Police, Manikganj; a drill-shed and stable for the Constables' Training School at Dacca; Police buildings at Singair, Dhamrai and Baxirhat; investigating centres at Baidya Bazar, Serajdhikhan, Ramoo, Debiduar, Faridganj, Wazirpur, Rajapur, Gosairhat and Madhukhali; constables' barracks at Perojpur and Faridpur; an office for the Superintendent of Police at Comilla; Deputy Superintendent's quarters at Diamond Harbour; Police buildings at Debhatta in the Khulna district; family quarters for a Sub-Inspector and a head-constable at Shamnagar, Khulna; Police buildings at Mollahat; quarters for the Sub-Assistant Surgeon, the compounder, bhistis and cook, and excavating a well for the hospital at Midnapore; Reserve Police buildings at Midnapore; Police buildings at Keshpur; additions to and alterations in the Assistant Superintendent's residence at Contai; Police buildings at Keshabpur, Indus, Jessore, Krishnagar, Ghurni, Chuadanga; a small investigating centre and parade-shed at Onda; conversion of the Silk Factory at Choa, Berhampore, into a police-station at Harinagar and Reserve Police buildings at Burdwan.

Land was acquired for the River Police head-quarters at Barisal.

383. The following educational works were completed :— **Educational.**

The south-east wing of the Baker Madrassa Hostel, Calcutta, and the electric installation in the wings of the hostel; servants' quarters, latrine and outhouses for the Bethune College, Calcutta; an Isolation Hospital for the Dow Hill Girls' School at Kurseong; extension of the hockey-ground at Dow Hill Girls' School, Kurseong; improvements to the water-supply of the Victoria Boys' School, Kurseong; conversion of and addition to an old godown for a kitchen; provision of a scullery and pantry for the school staff; construction of a parapet wall along the upper play-ground at the Dow Hill Girls' School, Kurseong; Hindu and Muhammadan hostels, dining-hall

and cook-room for the Zilla School, Mymensingh ; conversion of a portion of the Secretariat (E. B. & A.) at Dacca into hostels for the Dacca College ; improvements to the Guru-Training School building at Ampta ; a dining-hall, kitchen, well and latrine for the Muhammadan Hostel attached to the Khulna Zilla School ; sitting-rooms for the Professors of the Krishnagar College ; Head Pandit's quarters in the compound of the Guru-Training School at Kola ; and acquisition of land for the extension of Rajshahi College.

The following works were in progress :—

Conversion of the east wing of the Promotha Nath Hostel attached to the Rajshahi College into family quarters for the Superintendent ; Muhammadan Hostel for 50 boys attached to the Zilla School, Bogra ; raising the site for the Zilla and Technical Schools at Barisal ; and additions and alterations to the Girls' School and Mistresses' quarters at Faridpur.

Hospitals and Dispensaries.

384. In the compound of the Campbell Medical School and Hospital, Sealdah, the construction of quarters for servants and menials was commenced ; the Elliot Ward "B" was converted into Physiological and Pathological Laboratories ; a gallery was constructed round the central hall, and electric light in the hospital was installed.

The Out-patient Dispensary at the Sambhu Nath Pandit Hospital, Bhowanipore, was extended. The construction of quarters for the servants of the Medical College, Calcutta, was in progress. Additions and alterations in the childrens' and sisters' bath-rooms and the provision of wire-netting in the verandah of the Eden Hospital of the Medical College, Calcutta, were in progress. The installation of electric lights and fans in the Tubercular Ward of the Medical College Hospital was completed. The raising of the lowland in the compound of the Albert Victor Leper Asylum at Gobra was in progress. Special repairs to residence for the Civil Surgeon at Berhampore were completed.

Printing.

385. Land was acquired at Chetla in the 24-Parganas district for a new Press for the Bengal Secretariat. The installation of electric fans, lights and ventilating fans in the Bengal Secretariat Press in Writers' Buildings was in progress.

Registration.

386. The following works were completed :—

Additions and alterations to the Sub-Registrar's quarters at Gaibandha in the Rangpur district ; improvements in the record-room of the Registration office, Jalpaiguri ; in the Sub-Registry offices at Mirsarai in the Chittagong district ; and at Madhupur in the Mymensingh district ; and additions and alterations to the Sadar Registration office at Burdwan.

The following works were in progress :—

A Sub-Registry office at Srinagar in the Dacca district ; and Sub-Registrar's office and quarters at Mollahat in the Khulna district.

The following works were completed :—

Public Works Department buildings.

387. Diversion of a sullage drain in the compound of and electric light installation in the Public Works Department Subdivisional office at Darjeeling ; improvements to the Subdivisional office and godown at Dinajpur, the addition of three rooms to the store godown and improvements to the verandah roof of the Subdivisional Officer's quarters at Pabna ; and construction of a godown at Nator.

The construction of a residence and office for the Subdivisional Officer at Gairkatta in the Jalpaiguri district was nearing completion.

Archæological Works.

388. Special repairs to the cloisters of Adina Mosque at Pandua in the Malda district were nearly completed. The repairs to the Satgambuz Mosque and Khan Jehan Ali's tomb at Bagerhat were completed. Repairs to the 14 ancient temples in and near Vishnupur in the Bankura district were carried out as far as funds permitted.

Ecclesiastical.

389. Improvements to the cemetery at Singtom in Darjeeling were carried out.

Miscellaneous.

390. A Khas Tahsil office at Bhagwanpur in the Midnapore district was completed. Land was acquired at Patpur, Bankura district, and Degri, Burdwan district, for brickfields in connection with the construction of Settlement buildings at Bankura and various buildings at Burdwan.

Land was also acquired for brickfields at Gokulpur and Jhargram and construction of a railway siding to the brickfield at Gokulpur was taken in hand.

391. The following works were completed :— **Contribution Works.**

A Tubercular Ward on the roof of the Medical College Hospital, Calcutta; sweepers' quarters attached to the Charitable Dispensary at Kurseong; a porch to the Church of Rome at Saidpur in the Rangpur district; and improvements in the Charitable Dispensary compound at Kurseong.

The following works in connection with the reconstruction of the Mitford Hospital at Dacca were completed :—

The Administration Block; the Female Surgical and Obstetric Wards; combined shops, godowns, paying wards and servants' quarters; and the water-supply arrangements to those buildings. The construction of the King Edward Memorial Block was commenced in January 1918. The construction of roads, drains and the laying out of the grounds were in progress.

An installation of electric fans and lights in the Town Hall, Calcutta, temporarily used as Furlough Home for troops from Mesopotamia; the construction of a hospital for Tropical Diseases in the Medical College, Calcutta, and the installation of electric lights, fans, lift and pumps for the hospital were in progress.

The Nizamat tombs in the Murshidabad district were repaired.

COMMUNICATIONS.

392. That part of Theatre Road which lies within the boundaries of the Calcutta Maidan was widened to 50 feet and provided with a footpath and grass-ride similar to the recent extension known as Queensway which forms the northern boundary of the Victoria Memorial grounds. **Calcutta.**

A masonry culvert on the 20th mile of the Calcutta-Jessore Road was reconstructed and the teak piles of the Haridaspur Bridge in the 27th mile were renewed during the year.

393. The following works were completed during the year :— **Darjeeling.**

(1) Widening the Teesta Valley Road from the junction of the old and new roads up to near the Geille Jhora Bridge.

(2) Reconstruction of the Rishi Bridge at the 26th mile of the Rishi Road.

(3) Construction of a pony track from Dudhia Jhora to Panighatta Suspension Bridge.

(4) Remodelling part of the drain alongside the Matigara-Kurseong Road from the Municipal godown to Wathen Jhora in the town of Kurseong.

394. Work on the Duars Road Improvement Scheme was in progress during the year. As the total expenditure on the scheme is limited for the present to Rs. 20 lakhs, it has been decided to complete those roads, the improvement of which has been taken in hand. These roads aggregate 87½ miles, of which 69½ miles were completed at the end of last year, and 12½ miles during the year under report, leaving 5½ miles still to be completed probably by the end of 1918-19. **Jalpaiguri Duars.**

The remaining roads in the district require improvement, but this work cannot be taken up for the present.

No great difficulty was felt in obtaining material and labour for road construction, notwithstanding the shortage of rolling stock on railways.

During the year under review work on the following roads was in progress :—

(1) Gairkatta-Dalgaon Road.

(2) Dalgaon-Lunkapara Road.

(3) Jainti-Dhowla Road.

(4) Alipur-Kumargram Road.

The construction of two additional spans to the existing four spans of the bridge over the Gadadhar river was taken in hand.

The piers and abutments of the bridge over the Jaldhaka river on the Tondu Forest Road were completed up to girder level and the river training and earthwork in approach roads were also finished. The delay in finishing the bridge was due to the difficulty in obtaining steel work for the superstructure. Spare girders have now been purchased from the Darjeeling-Himalayan and Eastern Bengal Railways.

The bridges over the Murti river and the Sukkani Jhora on the Nagrakatta-Changmari Road, the construction of which was commenced last year, were completed.

The construction of bridges over the Dim Dima, Kalua and Sakti rivers was taken up and was in progress during the year.

Great difficulty was experienced in obtaining materials for bridges. Such material as could be obtained was purchased at a much higher price than was estimated for, and in many cases the sanctioned design had to be modified to suit the materials available in the market.

The result of the increased price of materials and the modification of design has resulted in bridge work costing more than was anticipated and, in consequence, the length of road, which could be improved with funds available, has had to be reduced.

A bungalow belonging to the railway at Jainti was purchased at a cost of Rs. 4,900. Necessary additions and alterations are now being carried out with a view to its utilization as an inspection bungalow.

Dinajpur. 395. The metalling of miles 14 and 16 of the Hilli-Balurghat Road was taken in hand during the year, but only a small quantity of road metal could be collected owing to railway restrictions. For the same reason there has been considerable difficulty in obtaining road metal for repairs in many districts in the Presidency.

Chittagong Hill Tracts. 396. Progress was made in the construction of two bridle roads in the Chittagong Hill Tracts from Nainerchar to Maionmukh and from Khagrasory to Dighinala.

ARBORICULTURE.

Arboriculture. 397. Arboricultural operations along roads in charge of the Public Works Department were carried out as far as funds permitted.

MISCELLANEOUS PUBLIC IMPROVEMENTS.

Calcutta. 398. An area of land on the north bank of Tolly's Nullah near Kidderpore Bridge on the Calcutta maidan, formerly used as a stone metal depôt, was levelled and dressed and part of the area on the south of the Miniature Rifle Range was made suitable for the stacking of stone metal.

Darjeeling. 399. The remodelling of the Cutchery Jhora with Raniganj pipes was commenced during the year. Pillars were erected on the boundary between Nepal and British India in the Darjeeling district.

Jalpaiguri. 400. The construction of spurs in the bed of the river Teesta for the protection of the town of Jalpaiguri was completed. Bamboo piling was also provided along the bank opposite the Zilla School and Forest office.

Rajshahi. 401. The Ganges river bank near the Jail and Post offices was subjected to considerable scour and erosion in December 1917, and protective Embankment No. 56 was threatened. Temporary measures were taken by means of bandels and easing the bank slope to stop the immediate danger, and arrangements were made for the construction of a retired line of embankment and for a stone and brick revetment of the river bank. Materials were being collected and the work was in progress at the close of the year.

Noakhali. 402. The erosion of the coast of the Noakhali district continued during the year and the buildings of the Zilla School and other Government property are now threatened with destruction. A site was acquired and raised during the year with a view to the construction of temporary buildings in place of those threatened.

CONTRIBUTION WORKS.

Darjeeling.

403. The following works were completed during the year :—

(*1*) Construction of a camping-ground for carts in the 32nd mile of the Teesta Valley Road.

(*2*) Protective works to the Namring Slip in Pumong Khas Mahal in the district of Darjeeling.

A drainage scheme for the Kalimpong bazar and town was taken in hand and half completed during the year.

Railways.

Administration.

404. With the exception of the following light railways of local importance, which are subject to a certain measure of control by this Government, the important lines of railway in Bengal are under the direct control of the Government of India, Railway Department (Railway Board) :—

	Gauge. Ft.	In.	Miles.
(1) Darjeeling-Himalayan Railway	2	0	51·00
(2) Bengal Provincial Railway (Tarkeswar-Tribeni) ...	2	6	33·27
(3) Howrah-Amta Light Railway	2	0	43·87
(4) Howrah-Sheakhalla Light Railway	2	0	19·75
(5) Baraset-Basirhat Light Railway	2	6	52·24
(6) Jessore-Jhenidah Railway	2	6	36·80
Total			236·93

Mileage.

405. In the year 1917-18, 139·50 miles of new railway were opened for traffic as shown below :—

Standard (5′ 6″) gauge.

Nil.

Metre (3′ 3⅜″) gauge.

	Miles.
Mymensingh-Bhairab Bazar Railway—	
Kishoreganj-Gourigram Section	30·00
Gourigram-Mymensingh „	11·00
Gourigram-Netrakona „	15·25
Narrow (2′ 6″) gauge.	
Kalighat-Falta Railway	25·25
Ahmedpur-Katwa Railway	32·25
Bankura-Damodar River Railway—	
Indas-Rainagar Section	17·50
Bengal Provincial Railway—	
Dasghara-Jamalpurganj Branch	8·25

With these additions the total mileage open on 31st March 1918 was as follows :—

	Miles.
Standard (5′ 6″) gauge	1,461·16
Metre (3′ 3⅜″) „	1,271·56
Narrow (2′ 6″) „	315·80
„ (2′ 0″) „	183·40
Total ...	3,231·92

Surveys sanctioned.

406. The following surveys were sanctioned by the Railway Board :—

(1) On the east or left bank of the river Jamuna, opposite Serajganj ; with a view to selecting a site for the establishment of a ferry service in connection with the proposed Serajganj-Mymensingh Railway.
(2) Birnagar-Santipur-Krishnagar Railway survey.
(3) Chittagong-Maungdaw Railway survey.
(4) Kalimpong Road-Gangtok Railway Reconnaissance survey.
(5) Rampore Boalia-Nattore-Nischindpur Railway Reconnaissance survey.
(6) Rajapur-Srimuddi Railway survey.
(7) (*i*) A detailed survey for a line of railway on the metre gauge from Islampur to Siliguri *viâ* Titalia, a distance of about 36 miles.
(*ii*) A detailed survey for a line of railway on the metre gauge from Titalia or Ramgunje to Jalpaiguri, a distance of about 22 miles.
(*iii*) A reconnaissance survey for a line of railway on the 2-feet gauge from Islampur to Dinajpur *viâ* Lahiree Hât with a branch from Lahiree Hât to Haldibari, a distance of about 89 miles.
(8) Santahar-Dinajpur Railway reconnaissance survey.

Mymensingh-Bhairab Bazar Railway.

Lines opened during the year.

407. This metre gauge railway, which is 102·07 miles long, is worked by the Assam-Bengal Railway with their own rolling stock at 50 per cent. of the gross receipts. With the exception of the Shamganj-Jaria-Jhanjail Branch (13·20 miles in length) the whole of this line was opened for passenger traffic during the year. The country through which the railway passes is flat and low-lying and densely populated. The principal products are jute and rice. The most important engineering works on the railway are the bridges over the old Brahmaputra river at Mymensingh and over the Magra Dhalai Singhal and Narsunda rivers.

Kalighat-Falta Railway.

This is a 2′ 6″ gauge railway under the Managing Agency of Messrs. McLeod & Company. It is intended to connect it after the war with the Budge-Budge Branch of the Eastern Bengal Railway at the proposed new site of the Majerhat station. The line is expected to develop chiefly a suburban passenger traffic, and is a convenience to the people employed in the Kidderpore Docks. The line was opened for passenger traffic on the 28th May 1917.

Ahmedpur-Katwa Railway.

This is also a 2′ 6″ gauge line under the Managing Agency of Messrs. McLeod & Company. The length of the line is 32·26 miles. It was constructed chiefly for the purpose of developing passenger traffic, the density of the population in the area through which the line passes being 600 to the square mile. It is intended to work the line in close connection with the Burdwan-Katwa narrow gauge line. The line was opened for traffic on 29th September 1917.

Bankura-Damodar River Railway.

The Indas-Fakirpur and Fakirpur-Rainagar sections of the Bankura-Damodar River Railway were opened for passenger traffic during the year.

Bengal Provincial Railway.

The Dashgara-Jamalpurganj extension of this line was opened for traffic on 1st September 1917.

Canals—Irrigation and Navigation.

[Administration Report of Irrigation Works for the year 1917-18. Statistics of British India, Part III—Commercial Service.]

Capital and Revenue Accounts.

408. The transactions of the Irrigation Department, Bengal Presidency, for the year 1917-18 are exhibited in the following statement so far as they relate to works of Irrigation and Navigation :—

CAPITAL ACCOUNT.

Heads.	Amount of construction estimate.	Expenditure during 1917-18.	Expenditure to end of 1917-18.	Balance for expenditure from 1st April 1918.
Major Irrigation Works.	Rs.	Rs.	Rs.	Rs.
Direct charges	1,08,65,879	3,293	1,08,63,230	2,649
Indirect „	2,48,678	82	2,48,760	(-)82
Total ...	1,11,14,557	3,375	1,11,11,990	2,567
Minor Works and Navigation.				
Direct charges	1,33,59,289	3,35,176	1,35,37,678	(-)1,78,389
Indirect „	1,61,357	6,277	2,05,426	(-) 44,069
Total ...	1,35,20,646	3,41,453	1,37,43,104	(-)2,22,458

REVENUE ACCOUNT.

Heads.	Receipts.	WORKING EXPENSES.			Net Revenue.
		Direct.	Indirect.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.
Major Irrigation Works ...	2,77,964	1,70,963	9,638	1,80,601	97,363
Minor Works and Navigation.					
Works for which Capital and Revenue Accounts are kept.	7,18,907	5,35,661	14,027	5,49,688	1,69,219
Works for which only Revenue Accounts are kept.	33,651	1,20,707	10,186	1,30,893	(-) 97,242
Works for which neither Capital nor Revenue Accounts are kept.	37,345	27,788	...	27,788	9,557

Irrigation.

409. The following statement shows the areas irrigated during the year as compared with the average of the triennial period ending March 1917 :—

	MIDNAPORE CANAL (MAJOR WORKS).			EDEN CANAL (MINOR WORKS).		
	Kharif inclusive of hot weather.	*Rabi.*	Total.	*Kharif* inclusive of hot weather.	*Rabi.*	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Average of the triennium ending March 1917.	82,292	303	82,595	24,980	315	25,295
For 1917-18 ...	84,449	2,337	86,786	25,979	460	26,439

Lengths of Canals.

410. The following statement shows the lengths of canals and distributaries which were in operation during the year 1917-18 :—

	Midnapore Canal.	Eden Canal.
	Miles.	Miles.
Main canals, Irrigation	53·00	27½
Branch canals ditto	16·75	
Distributaries of above	254·54	17⅜
Navigable channels	69·75	...

Navigation.

411. The following statement shows the traffic on the navigable canals during the year 1917-18, as compared with the average of the triennium ending March 1917 :—

	Midnapore Canal.		Hijili Tidal Canal.		Calcutta Eastern Canals.		Madaripur Bhil Route		Orissa Coast Canal.		Nadia Rivers.	
	Average of the triennium ending March 1917.	For the year 1917-18.	Average of the triennium ending March 1917.	For the year 1917-18.	Average of the triennium ending March 1917.	For the year 1917-18.	Average of the triennium ending March 1917.	For the year 1917-18.	Average of the triennium ending March 1917.	For the year 1917-18.	Average of the triennium ending March 1917.	For the year 1917-18.
Length of canal open ... Miles	69¾	69¾	36	49¾	1,161	1,184	32	38	51	54½	488½	488½
Receipts ... Rs.	38,369	39,523	43,872	56,991	3,00,639	3,46,216	1,95,341	3,48,600	9,935	12,537	15,375	16,482
Tonnage of boats by canal measurement ... Tons	350,341	349,535	176,683	205,549	797,302	952,212	640,106	943,095	80,293	98,805	77,945	88,935
Estimated weight of cargo ... „	70,150	66,271	65,467	80,762	534,804	673,254	687,558	1,479,601	27,376	34,521	56,998	56,762
Estimated value of goods ... Rs.	73,91,953	65,52,741	51,82,721	52,06,238	6,16,86,003	7,81,84,821	8,91,59,497	17,07,71,265	20,33,638	22,66,930	73,39,638	70,51,846
Estimated value of rafts ... „	4,423	8,870	6,298	6,275	40,866	69,513	4,417	3,786	33,517	57,207	23,691	1,33,347

In accordance with the instructions of the Government of India the discharges of certain rivers as shown below were observed during the year under review :—

SOUTH-WESTERN CIRCLE.

Damodar River.

Date.		Discharges in cusecs at Jujuty.	Discharges in cusecs at Jamalpur.
13th May	1917	5,964	...
26th „	„	...	682
12th September	„	5,619	...
13th October	„	7,109	...
19th „	„	...	22,634
23rd „	„	...	19,849
24th „	„	...	24,789
29th „	„	6,695	20,156
9th November	„	...	13,676
20th „	„	3,206	3,054
30th „	„	2,634	...
15th December	„	2,051	...
18th „	„	...	1,630
30th „	„	...	1,064
31st „	„	1,709	...
15th January	1918	1,209	...
16th „	„	...	1,031
28th „	„	...	883
31st „	„	913	...
14th February	„	591	
18th „	„	...	685
28th „	„	373	...
9th March	„	351	
13th „	„	...	283
24th „	„	...	224
25th „	„	454	...
26th „	„	399	...
27th „	„	256	...
28th „	„	173	607
29th „	„	171	...
30th „	„	277	...

AJAI RIVER.

Date.	Locality.	Discharge taken by means of velocity rods, c. ft. per second.	
		C. ft.	
29th May 1917	... Satkahonia	2,936	
24th July „	... Ditto	9,472	
29th August „	... Ditto	2,987	
29th September „	... Ditto	13,518	
3rd October „	... Ditto	31,187	
5th „ „	... Ditto	9,707	
15th „ „	... Ditto	4,899	
22nd „ „	... Ditto	2,207	
15th November „	... Ditto	5,148	
30th „ „	... Ditto	843	
15th December „	... Ditto	655	
31st „ „	... Ditto	563	
January 1918	... No velocity could be taken for scanty supply in the river by flood observation.		
16th February „	... Satkahonia	20	
31st March „	... Ditto	90	1st section.
31st „ „	... Ditto	115	2nd section.

CENTRAL CIRCLE.

Names of river.	SEPTEMBER 1917.				OCTOBER 1917.			
	MAXIMUM DISCHARGE.		MINIMUM DISCHARGE.		MAXIMUM DISCHARGE.		MINIMUM DISCHARGE.	
	Date.	Quantity in cusecs.	Date.	Quantity in cusecs.	Date.	Quantity in cusecs.	Date.	Quantity in cusecs.
District Birbhum—								
More	24th	44,191	12th	1,135	8th	82,896	15th	2,165
Bansloe	21st	9,792	1st	61	7th	10,087	26th	257
Brahmini ...	22nd	16,126	1st	307	7th	19,104	29th	486

412. The classification of works dealt with in this review is as follows :— **Classification of Irrigation and Navigation works.**

Account—"*49—Major Works*".—In these are included the Midnapore and the Hijli Tidal Canals. The latter is used for navigation only, while the former provides for both irrigation and navigation. The original capital accounts of these canals have been closed and all present capital outlay is charged against head "43—Minor Works and Navigation". The revenue account is shown under "42—Major Works—Working expenses".

Account—"*43—Minor Works and Navigation*".—(*i*) The works for which capital and revenue accounts are kept include the Calcutta Eastern Canals and the Madaripur Bhil route. These are intended for navigation. (*ii*) The works for which only revenue accounts are kept are the Nadia rivers, the Gaighatta and Baxi Khal and a part of the Orissa Coast Canal. Under (*ii*) is also included the Magra Hât Drainage Scheme in the 24-Parganas district, which has been carried out under the provisions of the Bengal Sanitary Drainage Act. As the work is an agricultural work, its transactions are not reviewed in this report. (*iii*) The works for which neither capital nor revenue accounts are kept include (*a*) the Eden Canal, which is used partly for irrigation and partly to afford a supply of water for drinking and sanitation, and (*b*) training works carried out for the conservancy of the rivers Ganges, Bhagirathi, Dhaleswari and Buriganga.

Agricultural and drainage works have not been reviewed here as these subjects are separately dealt with in the Embankment and Drainage Report.

The transactions of the year for each of the above works are briefly described in the following summary which is given for convenience by circles of superintendence.

SOUTH-WESTERN CIRCLE.

MAJOR IRRIGATION WORKS.

Midnapore Canal.

Capital outlay. 413. A sum of Rs. 3,293 (direct charges), debitable to the capital account of the canal, was expended during the year. The total capital outlay (direct charges) to end of the year was Rs. 83,12,425.

Rainfall. 414. The rainfall at Midnapore during the year was 62·83 inches, as compared with 70·43 inches of the previous year. There were no abnormal floods in the Cossye Division during the year.

Irrigation. 415. The area irrigated from the canal was 86,786 acres, against 85,827 acres during the year 1916-17.

The cash realization on account of water rates during the year was Rs. 1,59,763, against a total demand of Rs. 1,63,355. The amount remitted or written off during the year was Rs. 2,713, as compared with Rs. 341 in the preceding year. The increase was due to remission of water rates to the extent of Rs. 2,448 for damage done to crops on account of a breach in the Cossye Left Embankment. The balance unrealised at the end of the year was Rs. 879, as against Rs. 1,082 at the end of the previous year. The collection of water rates on this canal continues in a satisfactory state. The rate for long-term leases was raised from Re. 1-8 to Rs. 2 per acre with effect from 1st April 1905. The question of further enhancing the rate has been held in abeyance.

Navigation. 416. The navigation receipts during the year showed an improvement over those of the previous year by Rs. 2,000, being Rs. 39,363, as against Rs. 37,187 during the year 1916-17. The increase was due to the diversion of railway traffic to the canal, owing to restriction of railway goods traffic on account of the war.

Financial results. 417. The gross revenue and working expenses (direct and indirect) of the Midnapore Canal amounted to Rs. 2,18,809 and Rs. 1,27,155, respectively, as against Rs. 2,31,810 and Rs. 1,70,529 in the preceding year.

Hijli Tidal Canal.

Hijli Tidal Canal. 418. There was no outlay chargeable to the capital account of the canal during the year. The total capital outlay (direct charges) to the end of the year amounted to Rs. 25,50,805. The gross revenue and working expenses (direct and indirect) of the canal amounted to Rs. 59,155 and Rs. 53,446, respectively, as against Rs. 57,598 and Rs. 27,975 in 1916-17. The increase in gross receipts was due to the better outturn of crops in the Contai subdivision and the consequent larger volume of traffic using the canal and probably also to the diversion of railway traffic to the canal on account of restriction in railway goods traffic due to the war. The increase in working expenses was due to the silt clearance of Range I for which purpose this range of the canal had to be closed to traffic for about a month and-a-half and to the renewal of the Etamagra Lock gates.

MINOR WORKS AND NAVIGATION.

Calcutta Eastern Canals.

Capital account. 419. A sum of Rs. 2,11,722 (direct charges) debitable to the capital accounts of the canals was expended during the year, inclusive of a credit of Rs. 62,444 on account of the hire of the dredgers "Foyers" and "Alexandra". The principal item of expenditure of the year was on account of the improvement of the Gabkhan Bharani Khal from Chowkigatta to Jhalakati which was approaching completion at the end of the year under review. A sum of Rs. 7,903 was spent in obtaining 5 cottahs and 12½ chittaks of land on the west of the Canal West Road retransferred to this department by the Calcutta Improvement Trust. A sum of Rs. 25,000 was also spent in purchasing

from the Kurnool Division, Madras, a Rushton and Proctor steam navy to be converted into a dipper dredger for silt clearance on small channels.

Navigation receipts.

420. The receipts from navigation tolls amounted to Rs. 3,46,216, as compared with Rs. 2,98,117 in the preceding year. The gross receipts and working expenses (direct and indirect) amounted to Rs. 3,67,290 and Rs. 4,61,129, respectively, as against Rs. 3,22,179 and Rs. 2,69,679 in 1916-17, the result being a deficit of Rs. 93,839, against a profit of Rs. 52,500 in the preceding year.

Madaripur Bhil Route.

Capital account.

421. The expenditure (direct charges) debitable to the Capital Account of the project was Rs. 1,08,522 for works only. This was spent chiefly on (1) improvement of the Lower Kumar river at Charmaguria and easing bends from Futtepur to Takerhat, and (2) constructing an embankment with sluices along the south bank of the canal. The total capital outlay (direct charges) to end of 1917-18 amounted to Rs. 39,63,430, against the sanctioned estimate of Rs. 34,32,491. A complete revised estimate for the project was submitted to the Government of India for their approval and for the sanction of the Secretary of State in May 1917. As, however, the sanctioned works have already been carried to an advanced state of completion, the Government of India have decided that it will not serve any useful purpose to sanction a revised estimate now, but that the construction estimate should, as suggested by this Government, be closed with effect from the 31st March 1917, and a completion report prepared. The completion report is being revised on the lines indicated by the Government of India.

Navigation receipts.

422. The receipts and working expenses (direct and indirect) during the year were respectively Rs. 3,51,617 and Rs. 88,559, against Rs. 3,38,547 and Rs. 69,513 in the year 1916-17. The increase in receipts is chiefly due to the western entrance of the canal at Manikdah remaining free from silt deposit throughout the season as a result of the construction of the bund along the south bank of the canal.

Orissa Coast Canal.

Orissa Coast Canal.

423. This canal, which is intended for navigation only, lies partly (54½ miles) in this Presidency and partly in the province of Bihar and Orissa. It has been decided that each Government will deal with the lengths lying within their territorial limits. The receipts and working expenses (direct and indirect) for the year were Rs. 14,587 and Rs. 31,706, respectively, as against Rs. 14,142 and Rs. 18,347 in the previous year. The increase in working expenses was chiefly due to the carrying out of special repairs to the Bhaitgarh Lock.

Gaighatta and Buxi Khals.

Gaighatta and Buxi Khals.

424. The receipts for the year were Rs. 2,387, against Rs. 1,575 in the preceding year. No expenditure was incurred on maintenance and repairs of the khal. The collection of tolls on boat traffic has been leased out for two years from 1st April 1917 to 31st March 1919 at a rental of Rs. 3,400 per annum.

Eden Canal.

Eden Canal.

425. The receipts and working expenses amounted to Rs. 37,345 and Rs. 27,788, respectively, as against Rs. 39,618 and Rs. 55,784 in the year 1916-17. The area irrigated from the canal during the year was 2,460 acres less than in the preceding year. This decrease was due to copious rainfall throughout the *kharif* season. The Jhanpur sluices were for the first time worked during the year for irrigation purposes.

Improvement of the Bidyadhari River.

Bidyadhari River.

426. The work in connection with the improvement of the river by creating a spill area for the river was in progress during the year and an

expenditure of Rs. 2,91,203 was incurred to end of the year, against the sanctioned estimate of Rs. 2,64,275. A revised estimate providing for the increased outlay and for acquisition of the additional plots of land has been sanctioned. The operations already undertaken have effected some improvement; and it is expected that by the continuation and extension of the operations a further improvement will be effected and the life of the river will probably be prolonged for a number of years.

Investigation.

427. Surveys were continued during the year in connection with projects for mitigating the effects of the Damodar floods. Investigations were carried out in connection with storage reservoirs in the basin of the Damodar and Barakar rivers. Surveys were also carried out in connection with the proposed Damodar Canal project.

Floods.

428. In the Damodar river there were in all eleven floods of which seven were small ones. The highest flood occurred on the 7th October 1917 when the gauge at Edilpur read 19 feet which was 12½ inches lower than the maximum recorded flood of 1913. No material damage was done to the Damodar Left Embankment. There were also three high floods in the Ajai river during the year, but no damage was done to the Schedule D. Embankments on its bank.

In the Cossye Division there were moderate floods in the Cossye and other rivers during the month of June 1917, but no serious damage was done to any embankments. In the Damodar and Darkeswar rivers there were three high floods, one in August and two in October 1917. The first flood did some damage to the Chetua and Ghatal Circuit Embankments.

Anti-malarial projects.

429. Works classified under "Anti-malarial" which are in charge of the Public Works Department are in reality drainage schemes undertaken for the purpose of regulating the surface fresh water on the land with the object of serving the double purpose of securing the crops and submerging the land to destroy the breeding grounds of the anapheles mosquito. Given suitable regulating works complete control of the water can be secured so that the surplus is drained away and sufficient is retained to suit the requirements of agriculture; the original outlay and cost of upkeep is met from a special grant under the Sanitary head or by recoveries from those benefited under the provisions of the Sanitary Drainage Act.

Up to the year under review the only work carried out under the Sanitary Drainage Act is the Magrahat Drainage Scheme (283 square miles) which was brought into operation in 1909 and has proved a complete success. The cost of maintenance is met from tolls levied on boat traffic and miscellaneous revenue which in 1917-18 amounted to Rs. 26,358; the cost of upkeep was Rs. 24,637, the heavy expenditure being due to repairs to the lower floor of the main sluice at Diamond Harbour.

ORIGINAL WORKS.

The only new work under construction during the year was the Banka Anti-malarial project near Burdwan. The estimated cost is Rs. 73,217, against which Rs. 32,791 were spent. The works are designed to deal with about 3 square miles of country to the west of Burdwan town and especially the Issofabad Jhil and consist of an outfall channel from the Jhil into the Banka with a masonry regulator at the mouth and an escape weir for passing off floods; progress was satisfactory and the works were ready for use by the monsoon of 1918-19.

INVESTIGATION.

In the Jessore district the Arool Bhil project was fully examined and a project for dealing with 53 square miles of country was worked up and was submitted by the end of the year, the estimated cost being Rs. 1,72,549.

The Harihar Mukteswari scheme was also gone into, and the necessary surveys were in progress during the year; the project will deal with 160 square miles and is a promising one and is likely to revive the Harihar river and the upper-reaches of the Bhudder which are deteriorating.

The Bhairab project in the north-western portion of the same district is being worked up with a view to diverting a portion of the spill water from the Ganges and Gorai south-westwards, so as to give a flush over a tract of

country of about 800 square miles, where no spill takes place at present; a portion of the area has been contoured, but a good deal of further survey work remains to be done before a definite scheme can be put forward; should the project prove a success it will deal with one of the most malarious tracts in the Presidency.

In the Jessore, Nadia and 24-Parganas districts a project for dealing with a tract of 362 square miles drained by the Jaboona river was under preparation and was nearing completion at the end of the year. In the 24-Parganas district the Nowee Sunthi project which had been under investigation for some years was thoroughly examined with the result that the scope of the project has now been increased to include the Burthee Bhil area, thus raising the area to be dealt with from 55 to 146 square miles. The preparation of the project was nearly completed by the end of the year.

Another scheme for draining the Baragatchi and Utterbagh basins in the same district and serving an area of 16 square miles with a tidal sluice discharging into the Peali was submitted for sanction, the estimated cost being Rs. 44,259 for "works" only.

A third case under enquiry in this district was that of the Bullee Bhil on the Jaboona where existing works are inefficient; it is proposed to supply a new outlet where a better drainage head can be secured; the new outfall is under survey.

Another project in this district is the Monikhally scheme for dealing with 16 square miles on either side of the Budge-Budge Road west of Behala: the surveys were in progress at the end of the year.

In the Nadia district a project is in preparation for the improvement of the Anjona Khal which will have effect over an area of 59 square miles to the east of Krishnagar.

In the Howrah district it is intended to commence work on the Saraswati project which was sanctioned in 1914. The estimates have been under revision in order to reduce the quantity of steel work in bridges as much as possible; the project is designed to divert upland water which overburdens the Rajapore basin.

Other items of less magnitude were the investigations carried on in connection with the spill discharges of the Gorai, Madhumati and Matabhanga in the Jessore and Nadia districts through the Hallifax cut, Kaliganga, Kumar and Ichamatty and the improvement of the Alaipore and Satkhira khals in the Khulna district; in addition, a special study is being made of tidal conditions at the heads of the tidal streams in order that the conservancy of the rivers may be treated as a whole instead of piecemeal, and that the requirements of each river may be kept in view, so that the various projects may blend into one another to serve the three purposes of drainage, sanitation and navigation.

CENTRAL CIRCLE.

MINOR WORKS AND NAVIGATION.

430. The approximate length of the channels comprised in the Nadia Rivers remained the same as in the two previous years. These are as detailed below:— Nadia Rivers.

	Miles.
Faracca Channel from the Ganges to Biswanathpur ...	25
Bhagirathi river from the Bhagirathi entrance at Biswanathpur to Nadia	132
Bhairab-Jalangi from entrance to Nadia	163½
Mathabhanga from entrance to junction with the Hooghly ...	136
Hooghly from Nadia to Mathabhanga junction	32
Total ...	488½

In addition to the above a length of 10 miles of the river Gorai from its offtake from the Ganges down to Kushtia and the river Ganges from Rajmahal to Goalundo, a distance of 152 miles, are comprised within the charges of the Nadia Rivers Division, but are not included under the head Nadia Rivers. The Gorai has not been declared under the Canals Act.

No capital account is kept.

The receipts and working expenses (direct and indirect) were Rs. 16,677 and Rs. 99,187, respectively, as against Rs. 15,788 and Rs. 1,21,976 in the preceding year.

A brief description of the rivers comprised in the Nadia Rivers system is given below.

Bhagirathi river.

431. This river is 157 miles in length from the Faracca offtake down to Nadia, the length below Nadia down to the junction with the river Mathabhanga being known as the Hooghly. The first 25 miles is a sota of the Ganges called the Faracca Channel, the next reach of 68 miles from below Biswanathpur to Dadpur is known as the Upper Bhagirathi and the remaining reach of 64 miles down to Nadia is known as the Lower Bhagirathi. The Lower Bhagirathi is again divided into (*a*) the upper reach from Dadpur to Katwa, and (*b*) the lower reach from Katwa to Nadia. The Bhagirathi is not now used for navigation by steamers with regular services. On the Upper Bhagirathi ordinary boat traffic was maintained up to Azimganj almost throughout the year and through traffic up to the middle of November 1917. On the Lower Bhagirathi the steamer service from Calcutta to Katwa and thence to Jiaganj commenced in the middle of June 1917 and, owing to the shallow state of the river, was stopped from the middle of November 1917. Boat traffic was maintained throughout the year between Katwa and Nadia and thence to its junction with the Mathabhanga. From Katwa upward to Dadpur there was not much traffic except for small boats which plied throughout the year.

Twenty-eight shoals with an aggregate length of 79,000 feet were trained, as against 25 and 59,400 feet, respectively, in the previous year.

The minimum depth of water in the river at the end of March was :—

Reach of river.	LEAST DEPTH OF WATER. 1916.	1917.	1918.	Width of channel.
	Ft. In.	Ft. In.	Ft. In.	
Entrance from Ganges ...	Dry	0 3	Dry	More than 25 feet.
Thence to Goria ...	0 5	0 6	0 0	
Goria to Jangipur ...	0 5	0 6	0 4	
Jangipur to Berhampur ...	1 0	1 0	1 0	
Berhampur to Katwa ...	0 6	0 9	1 3	
Katwa to Nadia ...	2 0	1 9	2 0	

Bhairab-Jalangi river.

432. This river is divided into three different lengths, viz. :—

(*a*) The Bhairab, from the offtake down to Mukhtearpur.

(*b*) The Upper Jalangi from Mukhtearpur to Gopinathpur.

(*c*) The Lower Jalangi from Gopinathpur to Nadia.

No steamers plied on this river during the year, but through boat traffic was maintained throughout the whole length from July to November 1917, while small boats plied throughout the year from Mukhtearpur down to Nadia. There were altogether 15 shoals trained during the year, as against 13 last year.

Mathabhanga river.

433. The Mathabhanga river takes off from the Ganges about 5 miles above the village of Jalangi and joins the Hooghly below Chakdah. The length from the ontake to Munshiganj is known as the Upper Mathabhanga and below to the Hooghly junction as the Lower Mathabhanga. The upper reach remained open for through traffic from the middle of June to end of November 1917, while the lower reach was navigable all the year round for through and local traffic. Three shoals with an aggregate length of 3,100 feet were trained, against 4 and 2,698 feet, respectively, in the previous year.

Ganges river between Rajmahal and Goalundo.

434. The training works in connection with the conservancy of the river Ganges were carried out during the year through the agency of the India General Navigation and Railway Company, Limited, under Government supervision. Between Rajmahal and Damukdia nine shoals were trained, as against four in the previous year. The object of training these shoals by means of bandels is to maintain a navigable channel with 6 feet depth of water throughout the Ganges. The cost of the season's operations to Government was Rs. 9,072, against Rs. 8,192 in the previous year.

The entrance to the Bhagirathi river from the Ganges.

435. Owing to adverse circumstances no dredging operations were done during the year; endeavours were made to improve the entrance channel by means of bandelling only. The operations, however, were not successful. The total expenditure incurred was Rs. 4,226, against Rs. 12,679 in the previous season.

Discharge observations.

436. During the year under review discharge observations were taken of the rivers Bhagirathi, Bhairab-Jalangi and Mathabhanga at a cost of Rs. 9,677 for works only, against Rs. 8,405 of the previous year. The objects of these observations are (*i*) to determine the various sources from which the Hooghly derives its fresh water-supply, and (*ii*) to devise a means of improvement in the general regimè of the river.

Upper Hooghly and its feeder rivers.

437. The report on the Nadia Rivers submitted by Major F. C. Hirst, I.A., Director of Surveys, Bengal, and which was published during the year 1916-17, was still under consideration during the year. The Committee appointed in February 1917 to advise Government upon the steps which should be taken to carry out systematic observations of the changes in the Nadia Rivers, and also, if possible, to improve their condition as navigable channels and as feeders for the Lower Hooghly, have not yet finished their deliberations.

Gorai river.

438. This river takes off from the Ganges about 12 miles below the Hardinge Bridge over the Ganges.

The entrance is not stable and is of a shifting character. In 1912, the entrance channel changed to its present position and for some years gradually improved, with the result that a much larger volume of water entered and passed down to the lower reaches where the river is called the Madhumati. Since the year 1916-17, a very considerable change has taken place at the entrance, and a new channel called the Kolarkole Channel has opened out which carries off a large volume of water in an easterly direction back into the Ganges lower down. During the year under review this channel widened to a great extent and the amount of water drawn through the channel was greatly in excess of that in the previous year.

Floods.

439. There were no floods of an extraordinary character in any of the Nadia Rivers during the year. The floods, however, rose higher than those of the previous year.

NORTHERN CIRCLE.

Ganges river at Rampur-Boalia.

440. Training works were carried out in the channel of the river Ganges at Rampur-Boalia by means of bandelling operations in order to improve navigation and sanitary conditions and to maintain the water-supply of the town. The operations were successful. The total amount spent on the operations was Rs. 4,385 towards which the Steamer Companies and the District Board contributed Rs. 2,236. Inclusive of the unexpended contribution of Rs. 1,568 from the year 1916-17 and exclusive of the Government grant of Rs. 2,377 for the work during the year, the unspent contribution of Rs. 1,796 is available for expenditure during 1918-19.

EASTERN CIRCLE.

Dhaleswari and Buriganga rivers.

441. Training works for the improvement of the Dhaleswari and Buriganga rivers for navigation and for the water-supply of the town of Dacca were carried out during the year by bandelling operations only at a cost of Rs. 25,128. The operations were, however, not successful. No dredging was done by the department, but the Inland Steamer Company employed a dredger on the Postgola shoal in the river Buriganga near Dacca towards

which Government gave a contribution of Rs. 1,334, being half the cost of dredging actually incurred by the Steamer Company.

Investigations.

442. In October 1917 an Executive Engineer was placed on special duty to investigate the drainage conditions of the area lying between the Dhaleswari and the Padma rivers. The object of the investigation is to consider whether and in what way it is possible to improve the sanitary condition of the area between these rivers and to improve navigation facilities in the Dhaleswari, Buriganga and the numerous khals to the south of them, especially with a view to the possibility of opening a short navigable route between the Padma and the Dhaleswari.

At the request of the Chairman, District Board, Dacca, the Executive Engineer was also instructed to report on the general condition of the Dolai Khal at Dacca and the possibility of its re-excavation and maintenance as a navigable channel. This report was submitted towards the close of the year under review, and it has since been forwarded to the District Board and the Commissioner.

Embankment and Drainage.

[The Embankment and Drainage Works for 1917-18.]

Expenditure.

443. The expenditure on embankments including the charges for establishment and tools and plant was Rs. 8.91,353, and on drainage works Rs. 46,464 during the year.

Length of embankments.

444. The total length of embankments of all classes maintained by Government was 1,356 miles and 1,606 feet, against 1,358 miles of the preceding year. Owing to the contract for the maintenance of the Hooghly Right Embankment from Uluberia to Champakhal, in the Howrah district, having come into force from the commencement of the year, a length of 1 mile and 2,639 feet was added to the total length of the Takavi Embankments under contract in the South-Western Circle. A corresponding length of the same embankment, which was maintained under "Class D" was consequently struck off from the total length of "Class D" embankments. In the Northern Circle the whole of the Schedule D Embankment No. 56-B, 2 miles and 1,690 feet in length, was made over to the District Board of Rajshahi for maintenance as a high level road, as portion of the Rampur-Boalia Malda Road.

These embankments protect an area of 3,787,135 acres.

Floods and breaches.

445. The year under report was not characterised by any unusual catastrophe in the shape of cyclones, etc., but was a year of continuous heavy rainfall and there were high floods in nearly all the rivers. The floods in the Damodar and Ajai rivers were very frequent and prolonged, necessitating continuous efforts on the part of the officers concerned in the proper maintenance of those embankments. In the Damodar river there were altogether 11 floods, the highest recorded during the year occurring on the 7th October 1917, when the gauge at Edilpur rose to 19 feet as against 20 feet 1 inch on the 8th August 1913, the highest recorded flood. The flood which occurred on the 2nd August 1917 was in point of duration second only to the big flood of 1913. The duration of floods is generally measured by the period the river-level remains above 15·00 on the Edilpur gauge and the dangerous nature of the floods of 1917 may be gauged, when it is stated that the duration of the flood of August 1917 was 82½ hours. The duration of the floods of October was not so pronounced, being 23 hours on the 2nd October, 55 hours on the 7th October and 15 hours on the 3rd October, but the lateness and the duration of these 3 progressive floods in October are responsible for the damage caused in the spill area. The extent of damage to crops in the spill area of the river in the districts of Burdwan, Hooghly and Howrah was estimated approximately at 6 annas, but there was no loss of human life or cattle.

There was only one breach, 125 feet in length, in the Damodar Left Embankment, Schedule D, No. 32, at Fateypur in the 82nd mile in the district of Howrah, which caused damage to crops in an area of about 17·25 square miles, and two breaches in the Right Embankment, Schedule D, No. 36, at Bhangamora in the 5th mile.

In the Ajai river there were three high floods, of which the highest occurred on the 7th October 1917 when the gauge at Satkahonia read 15 feet 6 inches, as against 22 feet 8 inches of 23rd September 1916 when the highest known flood in the river was recorded. The floods of the year did no damage to the village along the right bank protected by embankments, but flood water freely passed through the opening at Sagarputal and the breaches in the Zamindari embankments, causing damage to crops. A project for the protection of this area between Sagarputal and the East Indian Railway loop line is under investigation.

In August and October 1917 high floods came down the Darkeswar river in the district of Midnapur at the same time as the Damodar river was in high flood, causing considerable damage to the Chetua Circuit Embankment, to the Ghatal Circuit Embankment and to the Shaikpur Circuit Embankment (Schedule D, No. 20). There were also several high floods in the Hooghly, Kaliaghye, Haldi, Rasulpur and Cossye rivers. The highest gauge-reading during the year of the Hooghly river at Gewankhali was 116·50 canal datum, as against the highest recorded level of 123·23 of 1874. The gauge-reading at Amgachia on the Kaliaghye river was 20·60 on the 9th October 1917, as against the highest recorded level of 20·87 on the 28th September 1913. In the Cossye river the highest gauge-reading of the year at Panskura was 33·00 on the 1st August 1917, against the maximum recorded level of 35·00 on the 1st October 1876. This flood caused a breach on the left Cossye Embankment above the crossing of the Bengal-Nagpur Railway, and also breached the Railway Protective Embankment behind it.

In the district of Rajshahi the erosion of the river Ganges at the tail-end of embankment No. 55 (Talaimari) which was severe in the year 1916 considerably slackened during the year under review. The erosion near the officers' quarters (Embankment No. 56) attacked points near the Jail and Post Office and carried away a part of the embankment.

Surveys.

446. The following surveys were carried out during the year :—

The special surveys along the new alignment of the proposed Chetua Circuit Escape from the 38th mile of the Chetua Circuit Embankment to the 5th mile of the Rupnarain Right Embankment were completed.

Surveys of the Kaliaghye river to investigate the causes of the gradual increase in the height of the floods were taken up.

Surveys of the Khas Tehsil Khals, of the Sadar Khal for silt clearance and for a new alignment of the Barunda Khal were also taken up.

Surveys of the channel leading from Kumirkhola on the Damodar to Eklakhi on the Darkesur were made with the object of affording relief of the Damodar flood-water along the Debkhal.

Surveys and investigations in connection with the selection of sites for reservoirs for impounding flood-water of the river Damodar were continued. A suitable site in the Barakar Valley having been found, detailed surveys were put in hand.

Works undertaken under the provisions of (a) the Bengal Drainage Act, VI of 1880.

447. The Dankuni, Howrah, Rajapur and Barajolla Drainage works were maintained at a cost of Rs. 10,548, against the average amount of Rs. 11,300 fixed for their maintenance.

The work in connection with the improvement of the Bidyadhari river by creating a spill area for the river was in progress during the year and an expenditure of Rs. 2,91,203 was incurred to the end of the year. This project is of a different type to the ordinary drainage project and aims at the resuscitation of the Bidyadhari river which discharges the drainage and storm-water of the town of Calcutta. This river is a Sundarban tidal creek which was kept alive by spill into the Salt Lakes to the east of the town ; owing to reclamation by embankments, the spill has been almost entirely cut off and the deterioration of the river which set in about 20 years ago had reached the point at which the municipal drains become surcharged and the lower portion of the town flooded after heavy falls of rain. It was decided to restore in part the spill into the lakes, in order to scour the river from the spill reservoir on the ebb tide ; about 1 square mile of the Salt Lake near the head of the river was acquired and the embankment freely cut to allow the flood tide to spill. The operations were commenced in June 1917 and by the end of Mach 1918 has resulted in a decided improvement to the river, with

the result that low-water levels have fallen, giving a better drainage head on the municipal sluices. The operations are being extended and it is hoped that considerable improvement will result in the near future.

(b) the Bengal Sanitary Drainage Act, VIII of 1895.

448. A review of the anti-malarial projects taken up and investigated during the year has already been given in paragraph 23 of the Irrigation and Navigation Annual Administration Report of the year and need not be recapitulated here.

The only work taken up during the year was the Banka Anti-malarial Project near Burdwan at an estimated cost of Rs. 73,217. During the year the work was partially completed.

Investigations were carried out in the districts of Jessore, Nadia and 24-Parganas in connection with the Arool Bhil Project, the Harihar Mukhteswari Project, the Bhairab Project, the Jabuna Project, the Nawi-Sunthi Project and other minor projects in the 24-Parganas.

(c) The Bengal Embankment Act, II of 1882.

449. Orders were issued at the end of the year to make arrangements for starting work in connection with the construction of a sluice and drainage channel at Mellock in the Midnapur district.

In October 1917 an Executive Engineer was placed on special duty to investigate the drainage conditions of the area lying between the Dhaleswari and Padma rivers. Preliminary reports have been received from the Executive Engineer and the investigations are still being continued.

A large number of sluices in Schedule D embankments were efficiently maintained at the cost of the estates benefited.

CHAPTER V.—REVENUE AND FINANCE.

A.—Gross Revenue.

450. The following statement shows the gross revenue (*i.e.*, the total of Imperial and Provincial Revenues) for 1917-18 as compared with that of 1916-17 :— **Gross Revenue.**

[THE FIGURES ARE IN THOUSANDS OF RUPEES.]

RECEIPTS.	1916-17.			1917-18.		
	Imperial.	Provincial.	Total.	Imperial.	Provincial.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Principal Heads of Revenue—						
I.—Land Revenue	1,43,82	1,65,02	3,08,84	1,36,27	1,61,00	2,97,27
II.—Opium	4,21,11	...	4,21,11	3,61,28	...	3,61,28
III.—Salt	1,34,04	...	1,34,04	1,09,16	...	1,09,16
IV.—Stamps	1,20,76	1,20,76	2,41,52	1,16,06	1,16 06	2,32,12
V.—Excise	...	1,44,44	1,44,44	...	1,56,36	1,56,36
VI.—Provincial rates ...	...	1,35	1,35	...	1,38	1,38
VII.—Customs	5,04,19	...	5,04,19	6,93,42	...	6,93,42
VIII.—Income-tax ...	84,28	84,28	1,68,56	2,35,64	1,03,96	3,39,60
IX.—Forests	...	13,39	13,39	...	13,77	13,77
X.—Registration ...	...	21,49	21,49	...	19,04	19,04
XI.—Tributes	63	...	68	68	...	68
Total ...	14,08,88	5,50,73	19,59,61	16,52,51	5,71,57	22 24,08
XII.—Interest	11,53	6,49	18,02	11,00	6,90	17,90
Receipts by Civil Department—						
XVI—Law and Justice—						
A.—Courts of Law ...	...	9,21	9,21	...	11,22	11,22
B.—Jails	...	12,13	12,13	...	11,88	11,88
XVII.—Police	...	1,84	1,84	...	1,87	1,87
XVIII.—Ports and Pilotage ...	...	12,61	12,61	...	10,06	10,06
XIX.—Education ...	...	9,47	9,47	...	9,51	9,51
XXA.—Medical	...	3,74	3,74	...	4,01	4 01
XXB.—Sanitation	...	84	84	...	12	12
XXIA.—Agriculture ...	...	1,16	1,16	...	1,22	1,22
XXIB.—Scientific and Miscellaneous Departments.	...	12,60	12,60	...	26,42	26,42
Total ...	...	63,60	63,60	...	76,31	76,31
Miscellaneous—						
XXII.—Receipts in aid of superannuation.	1,93	59	2,52	1,92	57	2,49
XXIII.—Stationery and Printing	...	1,50	1,50	...	1,35	1,35
XXV.—Miscellaneous ...	82	7,51	8,33	3,67	5,66	9,33
Total	2,75	9,60	12,35	5,59	7,58	13,17
Irrigation—						
XXIX.—Major Works (direct receipts).	1,45	1,45	2,90	1,39	1,39	2 78
XXX.—Minor Works and Navigation—						
By Civil Department	25	25	50	22	22	44
By Public Works Department.	3,92	3,92	7,04	4,24	4,24	8,48
Total ...	5,62	5,62	11,24	5,85	5,85	11,70
Buildings and Roads—						
XXXI.—Civil Works—						
By Civil Department	...	2,91	2,91	...	1,39	1,39
By Public Works Department.	1,16	5,67	6,83	1,14	4,79	5,93
Total ...	1,16	8,58	9,74	1,14	6,18	7,32
Transfers between Imperial and Provincial.	- 17,70	+ 17,70	...	- 8,95	+ 8,95	...
GRAND TOTAL ...	14,12,24	6,62,32	20,74,56	16,67,14	6,83,34	23,50,48

The variations are explained in the entries on Imperial and Provincial Finance.

B.—Imperial Revenue and Finance.

Imperial Receipts.

451. The following statement shows the Imperial receipts in 1917-18 as compared with those of 1916-17 :—

Major Heads.	1916-17.	1917-18.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
I.—Land Revenue	1,43,81,724	1,36,27,232	...	7,54,492
II —Opium	4,21,10,915	3,61,28,062	...	59,82,853
III.—Salt	1,34,04,794	1,09,16,629	...	24,88,165
IV.—Stamps	1,20,75,985	1,16,05,915	...	4,70,070
VII.—Customs	5,04,18,855	6,93,42,397	1,89.23,542	...
VIII.—Income-tax	84,27,714	2,35,63,815	1,51,36,101	...
XI.—Tributes	67,701	67,701	...	..
XII.—Interest	11,52,680	10,99,934	...	52,746
XXII.—Receipts in aid of superannuation.	1,93,365	1,91,569	...	1,796
XXV.—Miscellaneous	81,631	3,67,415	2,85,784	...
XXIX.—Irrigation Major Works—(Direct Receipts) Public Works Department.	1,44,866	1,39,150	...	5,716
XXX.—Irrigation Minor Works—Civil.	24,940	22,128	...	2,812
XXX.—Irrigation Minor Works—Public Works.	3,92,249	4,23,696	31.447	...
XXXI.—Civil Works—Public Works—	1,16,434	1,13,621	...	2,813
Transfers between Imperial and Provincial.	+17,69,861	−8,94,945	+8,74.916	...
Total ...	14,12,23,992	16,67,14,319	3,52,51,790	97,61,463

The more important variations shown in the above table were mainly due to the following causes :—*Land Revenue*—Lesser recoveries of Survey and Settlement charges :—*Opium*—Sale of reduced number of chests at the public auction. *Salt*—Restricted imports of salt owing to the scarcity of tonnage and high freights. *Stamps*—Disturbance of trade owing to causes connected with the war. *Customs*—Larger arrivals of duty-paid articles and larger collections of duty on the export of jute and gunny-bags. *Income-tax*—New scheme of taxation and the collection of "Super tax" for the first time. *Interest*—Further growth of the sinking fund of the Kidderpore Dock loan, the interest payable to the fund being taken in reduction of the interest receipts for the loan. *Miscellaneous*—Realization for the first time of a new impost, the "freight tax" in 1917-18. *Irrigation Major Works*—Reduced receipts from water rates in the Midnapore Canal. *Irrigation Minor Works (Public Works Department)*—Increased Navigation receipts from the Calcutta and Eastern Canals and Madaripur Bhil Route.

Imperial Expenditure.

452. The following statement shows the Imperial expenditure in 1917-18 as compared with those of 1916-17.

Major Heads.	1916-17.	1917-18.	Increase.	Decrease.
	Rs.	Rs.	Rs	Rs.
1. Refunds and Drawbacks ...	11,11,771	16,53,227	5,41,456	...
2. Assignments and compensations ...	1,19,444	1,30,787	11,343	...
3. Land Revenue	17,44,420	17,32,552	...	11,868
4. Opium	24,251	29,746	5,495	...
5. Salt	2,70,347	2,66,733	...	3,614
6. Stamps	3,13,185	3,15,098	1,913	...
9. Customs	13,35,938	13,77,657	41,719	...
10. Income-tax	81,377	94,608	13,231	...
13. Interest on other obligations ...	1,97,192	2,24,766	27,574	...
18. General Administration ...	5,20,602	5,17,828	...	2,774
23. Ecclesiastical	1,70,542	1,81,107	10,565	...
25. Political	5,400	5,488	88	...

Major Heads.	1916-17.	1917-18.	Increase	Decrease.
	Rs.	Rs.	Rs.	Rs.
26B Scientific and Miscellaneous Departments.	1,991	2,091	100	...
27. Territorial and Political Pensions ...	7,25,551	7,12,113	...	13,438
28. Civil Furlough and Absentee Allowance.	...	600	600	...
29. Superannuation Allowance and Pensions.	34,040	35,297	1,257	...
30. Stationery and Printing ...	81,320	1,38,591	57,271	...
32. Miscellaneous	1,70,535	1,68,481	...	2,054
33. Famine Relief	5,67,237	...	...	5,67,237
35. Protective Irrigation Works ...	470	403	...	67
42. Irrigation—Major Works—Interest on Debt.	1,92,585	1,92,638	53	...
Irrigation—Major Works—Working Expenses (P. W.)	92,902	85,645	...	7,257
43. Irrigation Minor Works (Civil) ...	852	790	...	62
Ditto ditto (P. W.) ...	10,01,209	11,68,118	1,66,909	...
45. Civil Works (Civil)	11,200	5,000	...	6,200
Ditto (P. W.)	9,47,536	8,31,165	...	1,16,371
Total ...	97,21,897	98,70,529	8,79,574	7,30,942

The principal fluctuations are explained as follows :—*Refunds and Drawbacks.*—Larger payments of Customs refunds due to the concession granted by the Government of India in respect of back commitments in the export of raw and manufactured jute :—*Assignment and Compensations.*—Arrear payment of malikhana and to payment of compensation to the Bhutan Durbar for removal of liquor-shops from the borders of the State from the 1st November 1917 :—*Opium.*—Higher freight charges on opium consignments to Burma :—*Customs.*—Larger expenditure on "Overtime Allowances" :—*Income-tax.*—Entertainment of temporary establishment in connection with the collection of super-tax :—*Interest on other obligations.*—Growth of the General Provident Fund :—*Ecclesiastical.*—Changes in the personnel :—*Territorial and Political Pensions.*—Lapses of pensions owing to deaths :—*Stationery and Printing.*—Larger supplies of stationery from Central Stores :—*Famine Relief.*—The operations were closed with the end of 1916-17 :—*Irrigation Major Works (Working Expenses).*—Reduced expenditure on repairs to lock gates and silt clearance in Tidal Canal :—*Irrigation Minor Works.*—Expenditure on project for mitigating the effects of floods and for the flooding of the Banka Valley :—*Civil Works (P. W. D.)*—Curtailment of expenditure on new works.

Land Revenue.

[*See* Chapter II of this Report.]

Canal Revenue.

[*See* Chapter IV of this Report—Canals.]

Sources of Revenue other than Land.

CUSTOMS.

[Report on the Maritime Trade of Bengal for the year 1917-18. Statistics of British India, Part IV—(*b*)—Finance and Revenue Accounts.]

Revenue from Customs.

453. The gross revenue from Customs (inclusive of 2·13 lakhs paid into district treasuries on account of salt imported into Calcutta) amounted to Rs. 7,80,98,000, against Rs. 6,06,85,000 in the previous year. Refunds

amounted to Rs. 13,83,000, against Rs. 9,17,000, so that the net revenue amounted to Rs. 7,67,15,000, representing an increase of a little over 28 per cent. on the previous year's figures. The new rates of duty introduced on the 1st March 1917 contributed Rs. 1·46 crores of the additional revenue by which the figures for the year under review exceeded those for 1916-17.

The gross import duties amounted to Rs. 559·31 lakhs of which Rs. 98·46 lakhs (including inland collections) were yielded by salt and Rs. 178·91 lakhs by cotton-goods. The export duty collections rose from Rs. 147·69 lakhs to Rs. 221·67, the excess being mainly contributed by jute (Rs. 67·05).

Net Revenue.

454. The net revenue of the Calcutta Custom House amounted to Rs. 7,53,49,334, against Rs. 5,83,89,496 of the previous year, representing an increase of 29 per cent. The net income of subordinate ports decreased from Rs. 24,63,153 in 1916-17 to Rs. 14,95,958, owing to smaller collections of export duty on tea and jute.

Cases under the Sea Customs Act.

455. The number of cases of infringement of the Sea Customs Act was 423, against 384 in the previous year. Of these, 70 cases arose out of notices under section 32, in 6 cases goods were taken over by Government and disposed of at a net total profit of Rs. 975-12. In addition to these, 116 cases of misdeclaration of goods were detected, the penalties imposed amounting to Rs. 1,002.

Cases under the Merchandise Marks Act.

456. There were 446 cases of infringement under the Merchandise Marks Act, against 630 in the previous year. Of these, 299 were in respect of false trade description and 85 in respect of piece-goods on which lengths were not properly stamped. The penalties imposed during the year amounted to Rs. 17,074, against Rs. 14,570 in the previous year.

SALT.

[Salt Administration Report for the year 1917-18. Statistics of British India, Part IV—(*b*) Finance and Revenue Accounts.]

Administration.

457. There was a decrease in the operations under the salt credit system. Securities to the extent of Rs. 54,84,200 were deposited during the year, as compared with Rs. 55,22,100 in 1916-17. The amount of duty debited during the year under the system was Rs. 83,68,422, against Rs. 89,49,431 in the previous year. There were 48 depositors during the year, 3 of whom closed their accounts, leaving a balance of 45, against 42 in the previous year.

Applications for licenses to manufacture salt.

458. Several applications for licenses to manufacture salt were received in Chittagong in November and December, when prices were at their highest and stocks were low. The applicants were taken by the Superintendent to inspect the richest soils in the district, but came to the conclusion that conditions were not suitable for the manufacture of salt on a commercial scale. A subsequent application for permission to manufacture salt experimentally without supervision for a period of six months, on a small scale, by the methods followed by illicit manufacturers, was rejected on the ground that proposals could not be entertained unless they provided for adequate supervision over the processes of manufacture. An application was received in the 24-Parganas in February but was withdrawn a few days later. With a view to encouraging the manufacture of salt in Bengal special enquiries were made, in all the coast districts except Bakarganj, as to the possibility of successfully introducing manufacture on a commercial scale, but the reports received show that such manufacture by any of the methods hitherto employed is impracticable in Bengal. Whilst there are patches of saline soil which lend themselves readily to illicit manufacture on a small scale by villagers, who employ their women and children for the purpose and are thus put to practically no expense, the soils are too poor and too scattered to make supervised manufacture possible, except at a prohibitive cost. The climate of Bengal is altogether unsuited to the system of manufacture by solar evaporation, which is followed in Madras.

Imports.

459. The total imports into Calcutta and Chittagong decreased by 19·3 per cent. and 20·3 per cent., respectively, as a result of lack of tonnage. There was, however, an increase in imports into Calcutta from Aden, Port

Said and Massowah and a shipment was received at Chittagong from the United Kingdom for the first time since 1913-14.

Consumption and prices.

460. A fall in the amount of the stocks at the *golas* led to the fear that there would be a shortage of stocks, and the demand became so considerable that wholesale prices rose rapidly from the middle of October, culminating in a very high figure in the end of November. High retail prices as a consequence prevailed throughout the province, and led in part to looting in *hâts* and bazars. Government took steps to deal with the situation ; arrangements were made ensuring ample supplies of salt ; and maximum prices were fixed for its wholesale and retail sale.

The total quantity of salt which passed into consumption in this Presidency during the year was 6,968,452 maunds exclusive of 2,751,437 maunds, the net export by rail, road or river, but inclusive of 696 maunds educed from saltpetre. The average wholesale price per maund of salt, inclusive of duty, was Re. 1-0-7 higher than in the previous year. This increase was a result of the rise in the price of imported salt. The average wholesale price per 100 maunds of Liverpool salt, as sold from ship's side in the port of Calcutta, exclusive of duty, was Rs. 273-6-4, against Rs. 145-9-5 in the previous year, whilst at Chittagong it was Rs. 409-6-0.

Financial results.

461. As compared with 1916-17 receipts show a decrease of Rs. 24,88,252 or 18·6 per cent. and charges a decrease of Rs. 28,068 or 8·4 per cent. The net revenue was Rs. 1,06,09,133, which was less than that of the previous year by Rs. 24,60,184 or 18·8 per cent.

Trade in saltpetre.

462. The quantity of salt educed in the process of refinement of saltpetre was 942 maunds, against 42 maunds in 1916-17, and the quantity of *sitta* (impure salt) left in the course of refinement was 191 maunds, against *nil* in the previous year. Six hundred and ninety-six maunds of educed salt were sold during the year, against 43 maunds in 1916-17.

Excise.

[Report on the Administration of the Excise Department, Bengal, 1917-18. Statistics of British India, Part IV—(*b*), Finance and Revenue.]

Excise Advisory Committees and Licensing Boards.

463. The recommendations of the Advisory Committees in all the districts were carefully considered and effect was given to them wherever practicable. In accordance with these recommendations 9 shops were abolished and 39 sites changed. At the instance of the Licensing Boards of Calcutta and suburbs 8 shops were abolished, 14 sites changed and one new license sanctioned.

Revenue.

464. The total excise revenue was Rs.15,625,391, against Rs. 1,44,07,868 for the previous year, showing an increase of Rs. 12,17,723. The heads which showed an increase were country spirit (Rs. 7,85,913), wines and spirits, *i.e.*, foreign liquors other than beer, medicated wines and commercial spirits (Rs. 2,67,812), hemp drugs, license fees and warehouse dues (Rs. 1,37,334), commercial spirits (Rs. 92,251), opium (Rs. 73,809), *puchwai* (Rs. 28,450) and *tari* (Rs. 17,506). Against this there was a large decrease of Rs. 1,96,131 under the head " Duty on hemp drugs". As a net result the incidence of excise revenue rose from 5 annas 1 pie to 5 annas 5 pies.

Country spirit.

465. The system of contract supply was the only system in force during the year. The number of shops increased by 4 and the consumption by 74,132 proof gallons. The high price of foreign liquor led to an increased consumption of country spirit in Calcutta, in the Asansol Subdivision of Burdwan and in the districts of Mymensingh, Bakarganj, Tippera, Pabna and Darjeeling. Outside Calcutta the only increases of 12 per cent. or more occurred in Tippera (966 proof gallons), Birbhum (935 proof gallons), where economic conditions improved, Burdwan (4,846 proof gallons) where the increase was chiefly due to the employment of more labour in the different industries in the Asansol Subdivision, in Jalpaiguri there was an increase of 3,195 proof gallons or over 10 per cent. as a consequence of the closure of the Bhutan outstills bordering on this district. The only districts in which the decrease exceeded 10 per cent. were Nadia (1,152 proof gallons) and Hooghly (2,000

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proof gallons), the decrease in both districts being attributed to the bad economic condition of the people as the result of the war. The revenue derived from duty and distillery fees increased by Rs .8,18,467, whilst that from license fees decreased by Rs. 32,554, the result being a total increase of Rs. 7,85,913.

Tari. 466. The total number of licenses issued for the sale of fermented and fresh *tari* increased from 1,954 to 2,319 and the total receipts from Rs. 4,76,666 to Rs. 4,94,172 or by Rs. 17,506.

Puchwai. 467. The total number of licenses issued was 34,787, as compared with 33,511 in 1916-17. The revenue from retail license fees increased from Rs. 7,63,363 to Rs. 7,91,521. The increase was considerable in Birbhum, Burdwan, Bankura and Midnapore and was due to some improvement in the condition of consumers and in Bankura to a more accurate valuation of the shops.

Foreign liquor. 468. The total number of licenses issued for the wholesale and retail vend of potable foreign liquor, exclusive of licenses for the retail sale of medicated wines and commercial spirits, was 569 against 606 in the previous year. The total receipts from license fees amounted to Rs. 2,98,725, against Rs. 3,26,146 in the preceding year, the decrease being due to the fall in consumption in 1916-17, which affected the settlements. The receipts from duty on potable foreign spirit manufactured in India were Rs. 5,97,053, against Rs. 3,01,820 in 1916-17.

Ganja. 469. The important feature of the year was the formation of a Co-operative Society of *ganja*-growers in Naugaon. This society is to be the sole purchaser of *ganja* from the cultivators and will deal direct with the retail vendors in Bengal. The total number of licenses issued for the retail sale of this drug was 1,267, as compared with 1,268 in 1916-17. There was a fall of Rs. 1,97,655 in the receipts from duty, whilst receipts from license fees increased by Rs. 1,27,395, the result being a net decrease of Rs. 70,260 in revenue. The total quantity of *ganja* consumed amounted to 1,908 maunds, as against 2,149 maunds in the previous year. Consumption decreased in every district except Burdwan and Bankura where the increases were very small. The decrease exceeded 10 per cent. in 8 districts and 20 per cent. in Hooghly and Nadia. The largest decreases (in quantity) occurred in Mymensingh, Calcutta and Rangpur. The general decrease in consumption was mainly due to high retail prices themselves occasioned by a general increase in license fees and a rise in the wholesale price of *ganja* at Naugaon. The incidence of license fees per seer of *ganja* consumed was Rs. 23·3 and that of duty Rs. 20. The total taxation was Rs. 43·3 per seer, as compared with Rs. 39·2 in the previous year.

Bhang. 470. The total consumption in the Presidency amounted to 605 against 539 maunds in the previous year. The total revenue both from license fees and duty amounted to Rs. 1,24,496, as compared with Rs. 1,12,483 in 1916-17.

Charas. 471. The number of retail licenses was 30 as in the previous year and the total revenue amounted to Rs. 52.668, as compared with Rs. 48,963 in 1916-17. There was an increase of Rs. 4,252 in the receipts from license fees, while receipts from duty decreased by Rs. 547.

Opium. 472. The system under which the issue of opium to retail shops is restricted to the estimated local demand continued in the districts in which it had been enforced previously. It was extended to a few shops in Burdwan, the issues to which showed a tendency to increase unduly, and to two shops at Darjeeling and Kalimpong. The total number of licenses issued for the retail sale of opium was 819, as compared with 820 in 1916-17. The quantity of opium consumed fell from 1,127 maunds 29 seers to 1,074 maunds 12 seers. Consumption decreased in 20 districts and increased in 7. The total receipts amounted to Rs. 29,44,947, as compared with Rs. 28,71,138 in 1916-17, an increase of Rs. 73,809 or 2·6 per cent., which occurred entirely under the head of "License fees".

Cocaine. 473. The total number of licenses issued to chemists and druggists for the sale of cocaine was 227, as compared with 218 in 1916-17, the previous year. Thirty-three permits for the possession of cocaine were issued free to managers of hospitals or dispensaries not under Government supervision, of which 19 were for tea-gardens in Jalpaiguri and the remainder for charitable dispensaries in various parts of the Presidency. Eight permits were issued

to dentists and medical practitioners. Arrests for illicit possession of cocaine decreased by 100. Cocaine is becoming less plentiful, though the quantity seized shows that the illicit traffic is far from becoming extinct. In Calcutta 204 ounces were seized by Excise officers and 371 ounces by Customs officers as compared with 308 and 442 ounces, respectively, in the previous year. The total quantity seized in Bengal was 39 lbs., 7 ounces and 388 grains, as compared with 50 lbs. 7 ounces and 188 grains in the previous year.

Excise offences.

474. The total number of persons arrested on charges under the Excise and Opium Laws during the year was 6,353, as compared with 5,303 in the previous year, and 5,691 persons were convicted against 4,700.

STAMPS.

[Annual Statistics of the Stamps Department for the year 1917-18. Statistics of British India, Part IV—(*b*) Finance and Revenue.]

Revenue.

475. The total receipts under the Stamp and Court-fees Acts fell from Rs. 2,46,13,496 in 1916-17 to Rs. 2,35,02,735 in 1917-18, a decrease of 4·5 per cent. The decrease occurred both in judicial and non-judicial stamps. The charges during the year amounted to Rs. 5,72,886, against Rs. 5,99,582 in 1916-17.

Judicial stamps.

476. The sale-proceeds from court-fee stamps (excluding stamps for copies) fell from Rs. 1,56,86,140 in 1916-17 to Rs. 1,54,64,431. The decrease occurred in all the districts of the Presidency Division and counterbalanced the increase in the other divisions.

Non-judicial stamps.

477. The receipts from the sale of non-judicial stamps declined from Rs. 78,61,262 in 1916-17 to Rs. 69,65,468, showing a decrease of Rs. 8,95,794 which was shared by all the divisions. The greater portion of the decrease in revenue during the year 1917-18 occurred in the Presidency and Dacca Divisions.

Sale of stamps.

478. The number of vendors who held licenses to sell stamps during the year 1917-18 was 5,311, against 5,250 in 1916-17, and the amount of discount allowed to such vendors declined from Rs. 3,89,246 in 1916-17 to Rs. 3,44,886.

Deficient duty.

479. The total number of cases in which deficient duty and penalty were levied under section 35 of Act II of 1899 fell from 2,329 in 1916-17 to 2,280, and the amount of duty and penalty realised from Rs. 16,653 to Rs. 16,264. The total number of cases decided by Revenue Courts under sections 32, 37, 40 and 41 of the Act fell from 3,340 in 1916-17 to 3,014, and the amount of duty and penalty realised from Rs. 76,525 to Rs. 58,446, the decrease being greatest in Calcutta (Rs. 18,107).

Prosecutions under the Stamp Act.

480. The number of cases instituted for infringement of the provisions of the Stamp Act was 272, against 257 in the preceding year, while 305 persons were brought to trial and 289 persons convicted against 266 and 252, respectively. The fines imposed rose from Rs. 2,419 in 1916-17 to Rs. 3,415. The amount of rewards paid to informers was Rs. 1,079, against Rs. 1,240 in the previous year.

Working of section 19H of the Court-fees Act.

481. Of the cases of valuation of estates for the issue of probates and letters of administration reported during 1917-18, including those pending at the beginning of the year, 70·6 per cent. were completely enquired into, against 72·8 per cent. in the previous year. The percentage borne by the deficit duty required to the amount originally realised was 12·2 per cent., against 12·3 per cent. in the previous year.

INCOME-TAX.

[Statistical Information regarding the Income-tax Department for the year 1917-18. Statistics of British India, Part IV—(*b*) Finance and Revenue.]

Financial result.

482. The receipts, charges and net revenue under the head "Income-tax" during the year 1917-18 were Rs. 2,07,40,392, Rs. 1,98,523 and Rs. 2,05,41,869. The net revenue showed an increase of about 22·0 per cent. over that of the previous year.

Collection.

483. The total collections made by District Officers on account of the tax under all parts during the year 1917-18 showed an increase of Rs. 31,23,163 or 19·8 per cent. over those of 1916-17. To this increase Part I (Salaries, Pensions, Annuities and Gratuities) contributed Rs. 2,08,821.

	Rs.
Part II—(Companies)	19,85,460
Part III—(Securities)	26,268
Part IV—(Other sources)	9,02,614

The percentage of tax collected under each part on the total amount of tax collected during the year 1917-18 was as follows :—

Part I—Salaries, pensions, etc.	8·4
Part II—Profits of companies	52·9
Part III—Interest on securities	2·2
Part IV—Other sources	36·5

Assessments.

484. The total number of persons finally assessed by District Officers in 1917-18 amounted to 62,943, representing an increase of 7·9 per cent. over the figures of 1916-17, whilst the final demand showed an increase of 23·4 per cent. over the figures for that year.

Incidence of tax.

485. Only one person in every 1,190 of the population outside Calcutta paid income-tax and the average amount paid by each assessee was Rs. 75. In Calcutta the proportion was one person in 47 and the average tax paid was Rs. 692.

Forest Revenue.

[*See* Chapter IV of this Report—Forests.]

C.—Revenue and Finance other than Imperial.

PROVINCIAL FINANCE.

Receipts and Expenditure.

486. The following statement shows the actual receipts and charges on account of Provincial Services for 1917-18, as compared with those of 1916-17.

(The figures are in thousands of rupees).

Receipts.	Actuals. 1916-17.	Actuals. 1917-18.	Expenditure.	Actuals. 1916-17.	Actuals. 1917-18.
Opening balance	2,79,19	33,964	1. Refunds and Drawbacks	2,68	2,43
			2. Assignments and Compensation ...	55	76
I.—Land Revenue	1,65,02	1,61,00	3. Land Revenue	34,93	36,30
IV.—Stamps	1,20,76	1,16,06	6. Stamps	3,13	3,15
V.—Excise	1,44,44	1,56,36	7. Excise	9,40	9,64
VI.—Provincial Rates	1,35	1,38	10. Income-tax	81	87
VIII.—Income-tax	84,28	1,03,96	11. Forest	6,20	7,39
IX.—Forest	13,39	13,77	12. Registration	11,35	11,41
X.—Registration	21,49	19,04	13. Interest on ordinary debt	5,02	4,72
XII.—Interest	6,49	6,90	18. General Administration	24,82	25,77
XVIA.—Law and Justice—Courts of Law.	9,21	11,22	19A. Law and Justice—Courts of Law ...	99,20	99,92
			19B. Ditto Jails ...	27,96	30,32
XVIB.—Law and Justice—Jails ...	12,13	11,88	20. Police	1,16 57	1,25,02
XVII.—Police	1,84	1,87	21. Ports and Pilotage	11,15	12,12
XVIII.—Ports and Pilotage	12,61	10,06	22. Education	76,87	81,00
XIX.—Education	9,47	9,51	24A. Medical	23,36	27,90
XXA.—Medical	3,74	4,01	24B. Sanitation	3,94	4,68
XXB.—Sanitation	84	12	25. Political	89	2,80
XXIA.—Agriculture	1,16	1,22	26A. Agriculture	10,87	11,72
XXIB.—Scientific, etc.	12,60	26,42	26B. Scientific, etc.	4,70	5,55
XXII.—Receipts in aid of Superannuation.	59	57	29. Superannuation, etc.	33,01	33,76
			30. Stationery and Printing	12,92	13,72
XXIII.—Stationery and Printing ...	1,50	1,35	32. Miscellaneous	2,48	3,31
XXV.—Miscellaneous	7,51	5,66	33. Famine Relief	1,47	...
XXIX.—Major Works—Direct Receipts —Public Works.	1,45	1,39	36. Reduction of Debt	60	...
			42. Major Works—Interest on Debt ...	1,65	1,65
XXX.—Major Works and Navigation—Civil.	25	22	Ditto Working Expenses—Public Works.	93	86
Major Works and Navigation —Public Works.	3,92	4,24	43. Minor Works and Navigation—Civil	1	1
			Ditto Public Works	10,01	11,68
XXXI.—Civil Works—Civil	2,91	1,39	45. Civil Works—Civil	7,84	12,25
Civil Works—Public Works	5,67	4,79	Ditto Public Works	56,55	77,95
Transfers between Imperial and Provincial.	+17,70	+8,95			
			Total ...	6,01,87	6,58,66
Total ...	6,62,32	6,83,34	Closing balance ...	3,39,64	3,64,32
GRAND TOTAL ...	9,41,51	10,22,98	GRAND TOTAL ...	9,41,51	10,22,98

Receipts.

487. The decrease under *Land Revenue* was due to short collections in Government estates owing to a slump in the jute market and a fall in the price of paddy which reduced the resources of tenants. The variations under the heads *Stamps*, *Income-tax* and *Irrigation*, which are divided heads, have been explained in the section on Imperial Finance. The increase under *Excise* arose chiefly in Calcutta, where the adoption of measures for the better control of the trade, in particular the prevention of dilution and fixation of maximum prices, resulted in a large increase in the consumption of illicit country-spirit. The improvement under *Forests* was due to the realisation of instalments payable on the sales of 1916-17 and to the supply of sleepers to the Munitions Board; while the decrease under *Registration* is attributable to a falling-off in the number of registrations owing to the good harvest of the preceding year. The increase under *Law and Justice—Courts of Law* was due partly to larger receipts on account of magisterial fines and partly to the fact that the receipts of the Administrator-General and Official Trustee on account of commissions and fees were placed to the credit of Provincial revenues with effect from the 1st October 1917. The decrease under *Jails* was due to smaller sales of manufactured articles, while that under *Ports and Pilotage* is explained by a reduction in the number of vessels entering the port as a consequence of war conditions. The increase under *Medical* was due to the recovery of hostel rents from students, while the decrease under *Sanitation* was due to the absence of contributions such as those made by the Indian Research Fund for anti-malarial schemes and the testing of vital statistics in the preceding year. The increase under *Agriculture* was caused by the expansion of experimental cultivation, while that under *Scientific and Miscellaneous Departments* was the result of unusually large sales of quinine including special sale of 30,000 lbs. for the Salonika War Force. The decrease under *Stationery and Printing* was due to the discontinuance of Customs publications; while that under *Miscellaneous* followed on smaller recoveries on account of famine expenditure and a decline in the amount of deposits lapsing to Government. The decrease under *Civil Works in charge of Civil Officers* was due to smaller receipts from tolls: the receipts of the previous year had also been swollen by a special refund from the Narayanganj Municipality. The actuals of 1916-17 under *Civil Works in charge of the Public Works Department* included arrear recovery of the Government share of surplus profits of the Darjeeling-Himalyan Railway; there were no such arrears in 1917-18.

Expenditure.

488. The decrease under *Refunds and Drawbacks* was due to smaller payments of Land Revenue and Excise refunds, while the increase under *Assignments and Compensations* was due to the payment of compensation to the Bhutan Durbar for the removal of liquor-shops from the borders of the State. The short recoveries from tenants in Government estates on account of Road and Public Works Cess which are adjusted in reduction of charges explain the increase under *Land Revenue*, while the increase under *Excise* was due to the appointment of an additional Deputy Commissioner and to larger expenditure on travelling allowance and reward. The increase under *Forests* was a consequence of expenditure in connection with the supply of sleepers to the Munitions Board, and that under *Registration* followed on the revision of the scale of Sub-Registrars. The increase under *General Administration* was due to larger expenditure on account of officers on special duty and temporary establishment under them; while that under *Law and Justice—Court of Law* was the result of the transfer to this Presidency on the 1st October 1917 of the charges of the Administrator-General and Official Trustee, Bengal. Larger purchase of raw materials for manufactures for the Military Department account for the increase under *Jails*; the increase under *Police* is attributable to expenditure on reforms and larger expenditure on contingencies and allowances. The increase under *Ports and Pilotage* was due to heavy purchases of marine stores; while that under *Education* was due to larger expenditure on account of payments in support of local schools, grants-in-aid for educational buildings and land charges. The increase under *Medical* was due chiefly to payment of grants to the Belgachia College and to increased expenditure in hospitals on account of diet, clothing, bedding and medical stores;

that under *Sanitation* to larger grants for anti-malarial measures; and that under *Political* to larger payments on account of allowances to *detenus* under the Defence of India Act. *Agriculture* charges increased with the expansion of the department and with larger expenditure on agricultural demonstrations; while in the *Scientific and Miscellaneous Departments* there was larger expenditure on temporary establishment in the Cinchona Plantations, and on the appointment of an Additional Inspector of Factories, and a Director of Industries. *Stationery and Printing* charges increased with the rise in the price of paper and stationery articles. There was no expenditure on *Famine* in 1917-18. The head *Reduction of Debt* has been abolished. The increase under *Civil Works in charge of the Civil Officers* was due to the payment of larger augmentation grants to District Boards, while that under *Civil Works in charge of the Public Works Department* was due to larger expenditure on police buildings, for the acquisition of land for the Secretariat Press, and servants, quarters of the Medical College and on the repairs of roads.

Local Funds.

[Reports on Local Funds for the year 1917-18.]

Balances.

489. The table below shows the actual receipts and charges and the balances, opening and closing balances, of the different Local Funds in the province for the year 1917-18 :—

Name of Fund.	Opening balance.	Receipts.	Total.	Charges.	Closing balance.
	Rs.	Rs.	Rs.	Rs.	Rs.
District Funds	29,55,051	1,10,25,011	1,39,80,062	1,08,15,307	31,64,755
District Road Fund, Darjeeling ...	61,051	73,742	1,34,793	59,009	75,784
Union Funds—					
Birbhum	1,707	7,242	8,949	7,445	1,504
Burdwan	394	839	1,233	695	538
Midnapur	1,047	4,944	5,991	4,055	1,936
Jessore	4,369	10,734	15,103	12,594	2,509
Khulna	996	5,491	6,487	4,783	1,704
Murshidabad	375	4,278	4,653	4,322	331
Nadia	1,906	995	2,901	1,261	1,640
Faridpur	136	10,812	10,948	5,190	5,758
Dacca	933	5,712	6,645	6,318	327
Total ...	11,863	51,047	62,910	46,663	16,247
Cantonment Funds—					
Alipur	720	2,324	3,044	2,430	614
Barrackpore	7,356	58,264	65,620	54,337	11,283
Dum-Dum	1,195	21,528	22,723	19,671	3,052
Jalapahar	137	10,045	10,182	9,823	359
Lebong	2,939	9,850	12,789	8,860	3,929
Takdah	2,249	3,783	6,032	4,575	1,457
Total ...	14,596	1,05,794	1,20,390	99,696	20,694
Town and Bazar Funds—					
Chittagong Hill Tracts Bazar	111	6,470	6,581	5,533	1,048
Jalpaiguri Western Duars Market.	36,561	43,612	80,173	45,971	34,202
Total ...	36,672	50,082	86,754	51,504	35,250
Police Funds—					
District Chaukidari Reward	87,318	80,074	1,67,392	64,588	1,02,804
Fire Brigade	89,133	2,18,279	3,07,412	2,09,010	98,402
Foundling Asylum ...	28	3,419	3,447	3,416	31
Total ...	1,76,479	3,01,772	4,78,251	2,77,014	2,01,237

Name of Fund.	Opening balance.	Receipt.	Total.	Charges.	Closing balance.
	Rs.	Rs.	Rs.	Rs.	Rs.
Marine Funds—					
Hospital Port Dues (Calcutta)	6,610	52,684	59,294	64,156	—4,862
Hospital Port Dues (Chittagong).	5,496	3,367	8,863	4,507	4,356
Total ...	12,106	56,051	68,157	68,663	—506
Education Funds—					
The Presidency College Graduate Scholarship.	2,855	4,752	7,607	4,164	2,843
Durga Charan Laha's ...	...	2,294	2,294	2,294	...
Total ...	2,855	7,046	9,901	7,058	2,843
Medical and Charitable Funds—					
Pilgrim Lodging House ...	6,907	6,694	13,601	7,109	6,492
Asansol Mines Board of Health.	29,059	56,152	85,211	36,490	48,721
Chittagong General Hospital	897	26,480	27,377	26,926	451
Imambara Hospital ...	4,883	17,192	22,075	17,884	4,191
Bengal Famine Orphan ...	9,059	1,222	10,281	...	10,281
Joygobinda Laha's ...	29,376	4,140	33,516	...	33,516
Ram Lal Mukherji Endowment.	5,176	1,750	6,926	...	6,926
Total ...	85,357	1,13,630	1,98,987	88,409	1,10,578
Public Works Fund—					
Darjeeling Improvement ...	85,246	1,14,675	1,99,921	1,08,146	91,775
Miscellaneous Funds—					
Steam Boiler Inspection ...	60,172	97,864	1,58,036	1,30,958	27,078
Zoological Garden ...	21,212	80,287	1,01,499	82,109	19,390
Moshin Endowment ...	13,008	1,00,212	1,13,220	88,331	24,889
Christian Burial Board ...	9,379	34,628	44,007	37,479	6,528
Muhammadan Burial Board	871	2,300	3,171	2,312	859
Syedpur Trust Estate ...	...	53,618	53,618	44,528	9,090
Boinchee Trust Estate ...	...	5,047	5,047	3,683	1,364
Total ...	1,04,642	3,73,956	4,78,598	3,89,400	89,198
Grand Total ...	35,45,918	1,22,72,806	1,58,18,724	1,20,10,869	38,07,855

One Union Fund in the district of Murshidabad—Mirzapur—was created while Nawpara Union Fund in the district of Khulna ceased to exist.

The aggregate receipts of the District Funds were the highest on record : this was due to their securing the complete benefit of the increased collections of the Public Works Cess, without any deduction in the usual augmentation grants.

Grants.

490. The Cantonment Funds received the following grants from the Military Department :—Alipur Rs. 500, Jalapahar Rs. 5,090 and Lebong Rs. 6,600. The Durga Charan Laha's Fund received a Government grant of Rs. 520. The Muhammadan Burial Board Fund was given a Government grant of Rs. 2,300 and the Zoological Garden Fund the usual Government contribution of Rs. 20,000. The account of the Syedpur Trust Estate was transferred from personal deposits and raised to a local fund in the Khulna Treasury on the 1st March 1918 : the opening balance of Rs. 32,379 standing at its credit on the above date merged in the figures under receipts. Similarly, the funds of the Boinchee Trust Estate were transferred from the Personal Ledger Accounts in the Hooghly Treasury with an opening balance of Rs. 1,657 which also merged in its receipts.

Road and Public Works Cesses.

[Report on the Land Revenue Administration of Bengal for the year 1917-18.]

Rate

491. The Road and Public Works Cesses were, as before, levied at the maximum rate of one anna in the rupee on the valuation of lands and annual

net profits of mines and other immovable properties in all the districts of the Presidency excepting the Chittagong Hill Tracts, where the Act is not in force.

Demand and Collection.

492. The current demand of land revenue for the cess-paying districts was Rs. 2,78,41,561, and the valuation or gross rental on which the cesses are based amounted to Rs. 12,59,55,694. The land revenue thus works out at 22·1 per cent. of the rental. The total cess demand was Rs. 77,89,603, including arrears (Rs. 8,74,505) and the total collections Rs. 67,56,691. As compared with the preceding year, there was an increase of Rs. 1,12,422 in the current demand. The increase is mainly shared by Midnapore (Rs. 42,483), Dacca (Rs. 26,146) and Rajshahi (Rs. 24,045), and was due to the valuation and revaluation proceedings. Taking the Presidency as a whole, there was a slight falling-off in the percentage of collection from 100·8 in 1916-17 to 97·7. The percentage of the outstanding balance on the total demand increased by 2·8. The remissions increased from Rs. 29,971 to Rs. 62,423, of which a sum of Rs. 60,852 was granted in the district of Burdwan alone, owing chiefly to the annual revision of coal mine assessments under Chapter V of the Cess Act. No portion of the arrear cess demand became barred by limitation in any of the districts of the Presidency.

Working of the Certificate Procedure.

493. The total number of certificates filed during the year for the realisation of cesses was 44,209, as against 48,850 in the preceding year. The decrease in the number of institutions is most marked in the 24-Parganas (1,011) and Nadia (1,745). Including 14,612 (revised figures) pending from the previous year, the total number of certificates aggregated 58,821, of which 48,343 were disposed of during the year, leaving 10,478 cases pending, as against 14,621 at the close of 1916-17. The number of cases pending over six months was only 1,062 (as against 1,346 of the previous year) of which Burdwan and Hooghly were responsible for 193 and 169 cases, respectively.

The mere issue of preliminary notices under the Certificate Act was sufficient to secure payment in 12,641 cases, while notices for the attachment of property, movable and immovable, induced payment in 31,526 cases. Sales actually took place in only 1,448 cases out of a total number of 58,821 cases for disposal.

Valuations and revaluations.

494. Revaluations on a big scale under the control of the Collector were in progress in the districts of the 24-Parganas, Midnapore and Bakarganj. Revaluations conducted by the Settlement Department were also in progress in the entire district of Rajshahi, and 2,798 estates in Noakhali. The annual valuations of the mines in the Burdwan Division and *gazari* forest in Dacca under Part II, Chapter V of the Act, proceeded as usual.

Municipal Revenue.

[*See* Chapter III of this Report—Municipal Administration.]

CHAPTER VI—VITAL STATISTICS AND MEDICAL SERVICE.

Vital Statistics.

[The Reports of the Sanitary Commissioner for the year 1917. Statistics of British India—Part V—Area, Population and Public Health.]

General results.

495. The year 1917 was remarkably healthy. The number of recorded births exceeded the number of deaths by 440,364, representing an addition of approximately 1 per cent. to the population recorded at the last census. The increase was more than double that returned last year, which was the largest recorded since 1912.

Birth-rate.

496. The birth-rate rose from 31·89 per mille to 35·91 per mille, which exceeds by 2·59 per mille the mean ratio of the previous quinquennium. The actual increase over the number of births recorded last year was 182,281 ; and every district contributed to this increase except Howrah and Bankura, where there was a decrease of 1·2 per mille.

Death-rate.

497. The death-rate fell from 27·37 to 26·19 per mille, the actual mortality being nearly 200,000 less than the average of the previous quinquennium. The decline was common to both urban and rural areas ; and, as shown in the marginal statement, there was a smaller mortality from all the common diseases except respiratory diseases. Among the districts, Darjeeling has the highest death-rate (38·6 per mille), its unenviable position being due to the unhealthiness of the Tarai, where 49·2 per mille of the population fell victims to fever. Among the towns of Bengal Kurseong heads the list, not for the first time, its death-rate being 48·79 per mille. Its unhealthiness is ascribed to insanitary conditions and the want of a proper sewerage system. It is proposed to remedy this state of affairs by a sewerage scheme which is shortly to be carried out with the help of a large Government grant and loan.

Cause of death.	Death-rate per mille.	
	1917.	1912-1916. (Average.)
Cholera	1·0	2·05
Small-pox	·1	·3
Plague	·003	·01
Fever	19·5	21·9
Dysentery and diarrhœa ...	·5	·6
Respiratory diseases ...	·2	·2
Injury	·4	·4
Other causes... ...	4·3	4·6
All causes ...	26·2	30·2

The number of infants dying during the first year of life was only 18·5 per hundred births. There has been a steady and progressive decrease in infantile mortality during the last four years, the percentage falling from 22·14 to 18·5. The highest ratio (23·92) was recorded in Calcutta, where, however, there has been considerable improvement during recent years. The ignorance and inefficiency of Indian midwives, coupled with the insanitary conditions which attend child-birth in a crowded city, constitute a special problem ; the appointment of Lady Health Visitors and the midwifery organization under the control of the Corporation have, however, been successful in preventing waste of child-life. During 1916-17 the Corporation midwives attended 627 cases, and there were only three maternal deaths, while the number of infantile deaths within ten days after birth was 35. A system of periodical inspections of babies at their homes by the Lady Health Visitors has also been introduced, and the fact that there were only 19 deaths among 464 babies under observation justifies the claim that the measure has some potential value in the saving of infant lives.

Verification of Vital Statistics.

498. The returns of vital statistics are admittedly deficient, and it is unnecessary to dilate on this familiar fact. The usual verification by inspectors and sub-inspectors of vaccination brought to light a slightly larger proportion of omissions, viz., 3·3 per cent. of births and 2·3 per cent. of deaths, than in the preceding year. The statistics are defective not only on account of such omissions, but also through confusion as to the causes of death. In the most malarious districts, possibly only one-quarter, or at the most one-third, of the

deaths entered under the head of fever are really due to malaria. Kala-azar accounts for a certain number of deaths in some districts; enteric fever is far more prevalent than is generally supposed; and phthisis probably accounts for at least 10 per cent. of the deaths recorded from fever. An improvement has been effected in some towns, but in others the recorded birth-rates are absurdly low signifying neglect on the part of the local authorities to take steps to secure accurate registration.

Fever.

499. The number of deaths reported under this head was 882,768. There has been a steady decrease from the total of 1,064,159 registered in 1915, the annual diminution being 154,279 in 1916 and 27,112 in the year under review.

The decrease in 1917 was confined to rural areas, urban statistics showing a slight increase, which may be attributed to an improvement in the registration of deaths.

Eastern Bengal, a region blessed with an abundant rainfall and great rivers, which, as they spread over the land in flood, not only fertilize the soil, but create conditions adverse to malaria, has, as usual, a comparatively low death-rate. Northern Bengal, a land of dead and dying rivers, in which the drainage system is deranged, is the most malarious part of the Presidency.

Malaria.

500. Progress was made with the execution of three of the four experimental anti-malarial schemes designed on lines laid down by Dr. Bentley. The Meenglass scheme, which will carry underground the ordinary flow of hill-streams, was completed and came into operation in the rains of 1917. It was not, however, found possible to control all the hill-streams within the area of the experiment, and an additional grant has, therefore, been given for further work. Though the spleen census taken after the rains of 1917 suggests that there has been some diminution in malaria, it will not be possible till after the rains of 1918 to judge whether the area under control is likely to be sufficient for the reduction of malaria. Progress was less satisfactory with the scheme for surface drainage, combined with the flushing of streams, in the Singaram Colliery in Burdwan. Delay in the completion of a masonry pier resulted in the structure being washed away by an unexpected flood, and difficulties, which were eventually overcome, arose over the abandonment of patches of rice cultivation which afforded breeding places for the anopheles mosquito. It is hoped that some idea may be gained of the effect of this scheme also after the rains of the current year. The scheme for flush drainage of an urban area at Jangipur was not completed in time to take advantage of the early floods, and consequently the flood-water of the Bhagirathi was only taken in twice late in the season. The works necessary for flooding a rural area in the Banka Valley near Burdwan could not be taken up in the absence of certain technical data which were required as a preliminary to engineering work. The engineering observations are now complete and the scheme is being proceeded with, while a special malaria survey has been carried out in 38 villages. Two Sub-Assistant Surgeons are now posted in this area to keep a record of births, deaths and sickness, while Sub-Assistant Surgeons have been sent to Meenglass, Singaram and Jangipur to watch the results of the schemes and supervise the free distribution of quinine and other drugs.

In addition to the usual free distribution of quinine, of which the cost is met by Government, special measures were undertaken in several localities for the prevention and reduction of malaria. Anti-malarial surveys were carried out in the Basirhat and South Dum-Dum Municipalities and in a large number of villages, as well as at the Kidderpore docks and the Sibpur College. Quinine was distributed to school children by five towns and five District Boards; and a spleen census was taken by thirteen towns and two District Boards.

The efficacy of quinine prophylaxis in the case of European residents in the Duars seems established and there is also reason to believe that the prophylactic value of quinine is being recognized and appreciated by Indians to an increasing extent.

Cholera.

501. There was an unusually small mortality from cholera, deaths numbering only 45,021 or 25,815 less than in the previous year. This is the lowest figure recorded since the reconstitution of the Presidency in 1912. The marked diminution in the prevalence of the disease is associated with increased rainfall and especially heavy falls in June and October.

Plague.

502. Plague remains an almost negligible factor in the health statistics of Bengal, the number of deaths in 1917 being only 163. All those who succumbed to the disease were residents of towns, and it was entirely absent from rural areas : 81 occurred in Calcutta, 48 in the 24-Parganas, 24 in Hooghly and 10 in Howrah, the rest of the Presidency being immune.

Hook-worm enquiry.

503. The researches made a few years ago by Lieutenant-Colonel Clayton Lane, I.M.S., brought to light the prevalence of ankylostomiasis or hook-worm disease in the Darjeeling district ; and during the year a systematic enquiry was instituted, with his assistance, in order to ascertain the prevalence and distribution of the disease in other parts of the Presidency. An examination of prisoners in fourteen jails, which were selected as affording facilities for the enquiry, shows a high degree of hook-worm infestation in the districts concerned, the percentage of infection being over 80 per cent. in five, from 70 to 80 per cent. in four, and from 60 to 70 per cent. in five of those in which the investigation was made.

Stegomyia enquiry.

504. The Committee appointed to consider the sanitary organization of the Port of Calcutta, with special reference to the action necessary to ensure its security against yellow fever, finished its enquiry. Its report was submitted to Government after the end of the year, and is now under consideration.

Emigration.

INLAND EMIGRATION.

[The reports on Inland Emigration under the Assam Labour and Emigration Act, 1901 (VI of 1901), for the year ending the 30th June 1918, submitted by the Superintendent of Emigration, Calcutta, and the District and Assistant Superintendents of Emigration.]

Administrative measures.

505. During the year under review recruitment by persons other than garden-sardars accredited to duly licensed local agents was prohibited. The object of this measure, which was the outcome of a recommendation made by the Assam Labour Board, was to prevent garden-sardars being deputed to work independently of a local agent, a practice which had frequently led to illicit recruiting through unlicensed persons. In order further to facilitate *bonâ fide* sardari recruitment, Government authorized Magistrates and Superintendents of Emigration in recruiting districts to correct technical errors in sardars' certificates.

Recruitment and recruiting agencies.

506. Recruiting operations were conducted in the districts of Bankura, Birbhum, Burdwan and Midnapore. The largest number of emigrants went from the districts of Bankura and Midnapore. Seven licenses were granted to local agents in 1917-18, as against six in the previous year. The number of garden-sardars employed in this Presidency, however, fell to 640 (including 190 sardarnis) from 1,610 (including 357 sardarnis) in the year 1916-17. The number of emigrants recruited in Bengal during the year was 508, or 1,689 less than in the preceding year. Only one criminal case connected with emigration was reported during the year.

Number of emigrants embarked at Goalundo.

507. The total number of emigrants, from Bengal and other provinces, who embarked during the year at Goalundo, was 9,808, as against 29,990 in the preceding year. This decrease is doubtless one of the results of the dislocation caused by the war, and is in continuation of a still larger drop in the previous year.

Places of accommodation and rest-houses.

508. The places of accommodation and rest-houses for emigrants were properly inspected and maintained in good sanitary condition. The sanitary arrangements on steamers which conveyed emigrants to labour districts were in accordance with the rules, and were generally adequate. Two deaths were reported among emigrants during transit to Goalundo, and three among the 9,836 emigrants who arrived at that place. There was no death during the steamer journey to Chandpur among the 3,389 emigrants who embarked for Cachar and Sylhet ; of the 6,419 emigrants who embarked for the Brahmaputra Valley two died during the voyage.

Repatriation.

509. Twenty-six emigrants who refused to embark were released under the orders of the Subdivisional Officer, Goalundo, 11 were rejected as unfit to labour in tea estates, and 5 were repatriated from the labour districts through Goalundo.

Medical Relief.

CALCUTTA MEDICAL INSTITUTIONS.

[Report on the working of Hospitals and Dispensaries in Bengal for 1917. Statistics of British India, Part V—Area, Population and Public Health.]

General.

510. The number of hospitals and dispensaries in Calcutta was 22 as in 1916. The accommodation in the hospitals was increased by only 4 beds and the number of internal patients treated in them was almost stationary. The attendance at out-door dispensaries, however, increased from 377,420 to 406,832. The daily average number of in-patients treated in classes I, III and IV institutions was 1,615·16, against 1,538·84 in the preceding year, and the death-rate among them was 10·78 per cent., as against 10·80.

Nursing arrangements.

511. Almost all hospitals found nurses hard to keep or procure owing to the greater inducements presented by work in war hospitals or private practice, and many suffered from depleted staffs during the greater part of the year.

Diseases treated.

512. Cholera and small-pox were less prevalent than in 1916 and the cases treated numbered only 577 and 44, respectively, as compared with 746 and 73. Calcutta was free from plague for the greater part of the year and only 18 cases were treated in hospitals, against 23 in the previous year. The number of patients suffering from phthisis fell from 2,447 in 1916 to 2,197, and the mortality in the hospitals from this disease from 339 among 767 in-door patients or 44·2 per cent. in 1916 to 326 among 754 or 43·2 per cent. in 1917. Patients treated for venereal diseases numbered 19,642 or 1,183 more than in 1916.

After consideration of the recommendations of the Royal Commission on Venereal Diseases, Government decided to give effect to certain measures for prevention and treatment including the gratuitous supply of salvarsan or its substitutes to hospitals and dispensaries.

Finance.

513. The upkeep of the hospitals in classes I, III and IV cost Rs. 16,42,995, or Rs. 2,14,483 more than in 1916. The increase was primarily due to building charges, Rs. 46,959 having been spent on the completion of the new Tuberculosis Ward at the Medical College Hospital and Rs. 1,66,873 upon the servants' quarters of that hospital.

DISTRICT HOSPITALS AND DISPENSARIES.

Number of institutions.

514. Twenty-eight dispensaries were opened and four closed, leaving a total of 724 at the end of the year. Of the new dispensaries 18 were under District Boards, 8 were private (of which 3 were aided and 5 non-aided), and two belonged to Railways. Conditions arising out of the war so increased the cost of building that with a view to economy deviations from the standard plan were sanctioned when this was possible without sacrificing efficiency.

Number of patients.

515. The total number of patients receiving medical aid in the Presidency outside Calcutta was 6,255,219, as against 5,823,160 in the preceding year. This figure excludes those treated at hâts or fairs, who numbered 85,345, against 149,357 for 1916. The increase in the total number of patients over that of the previous year was 368,047—a remarkable figure for so healthy a year.

Diseases treated.

516. In the districts, the largest attendance was for malaria, viz., 1,619,239 which is 203,076 in excess of the number for 1916. Owing to difficulties as to the quinine supply, it was impossible in many dispensaries to treat malaria patients with full doses. Small-pox was less prevalent than in 1916—the hospital attendance being 219 and 551, respectively. Only 10 cases of plague were dealt with in hospitals, as against 31 in the previous year. Cases of kala-agar increased from 740 with 26 deaths to 1,846 with 41 deaths; at the Kalna Mission Hospital treatment by tartar emetic injections was carried out with great success. The number of cases of venereal disease treated was 61,630, as compared with 59,539 in the foregoing year, separate record being kept of salvarsan treatments.

517. The total income of District Hospitals and Dispensaries of classes I, III and IV amounted to Rs. 13,42,699 and their expenditure Rs. 13,15,534 (excluding amounts invested) as compared with Rs. 12,50,070 and Rs. 12,48,450, respectively, in 1916. The chief part of their income was derived from local funds which contributed 40·1 per cent. of the total, as against 41·31 per cent. in the previous year. Public subscriptions and donations gave 19·93 per cent. and Government contribution 12·66, as compared with 20·56 and 12·77 per cent., respectively, in the previous year. **Finance.**

Eden Sanitarium, Darjeeling.

[Report of the Eden Sanitarium and Hospital for the year 1917.]

518. The total number of admissions during the year was 542 as in the previous year. The number of persons admitted to the several classes, viz., first, intermediate, second and third classes, was 138, 76, 215 and 113, respectively, as compared with 54, 145, 212 and 131 during the preceding year. The number of patients treated fell from 172 to 136. The free beds in the institution were occupied by 14 persons, as against 18 in 1916. **Admissions.**

519. The total receipts of the institution rose from Rs. 47,717 in 1916 to Rs. 56,417 in 1917, and the surplus at the end of the year amounted to Rs. 3,624. The receipts from patients increased from Rs. 32,708 in 1916 to Rs. 41,374, principally owing to the larger number of admissions to the first class. There was an increase of Rs. 5,119 in the expenditure under the head of "Diet for residents." The daily average cost for this rose to Re. 1-11-9, as compared with Re. 1-7-5 in the year 1916—partly on account of more first class residents being admitted and partly because the Managing Committee decided to provide better food. **Finance.**

The Darjeeling Municipality and the Darjeeling Improvement Fund continued their subsidies of Rs. 1,000 each.

Lunatic Asylums.

[Triennial Report on Lunatic Asylums in Bengal for the years 1915, 1916 and 1917. Statistics of British India, Part V—Area, Population and Public Health.]

520. At the close of the triennium under report, there were four lunatic asylums under the Act in Bengal, of which one, the Insane Ward of the Albert Victor Leper Asylum at Gobra, was declared to be such at the end of 1916. **Number of asylums.**

521. The main problem which concerned the administration of the Lunatic Asylums in Bengal during the triennium was that of accommodation. It had been barely sufficient during the previous triennial period, and with a further increase in the average number of inmates, the difficulty became acute. It had been intended to transfer the bulk of the insanes of this Presidency to new asylums at Ranchi, but conditions arising out of the war delayed their construction and temporary accommodation had, therefore, to be improvised. **Accommodation.**

522. The daily average population of the asylums during the triennium was 1,080·90, against 1,072·23 for the previous three years; the average number of admissions was 240, as against 200, and the average number of discharges 153, as compared with 125. Judging by these figures there would seem to have been a tendency to depart from the principle that admissions should be restricted to cases in which detention was unavoidable. There remained in the asylums for Indians many lunatics who could safely have been discharged, if friends or relations had been willing to look after them. **Admission, discharge and population.**

523. A satisfactory feature of the period was the continued marked improvement in the health of the asylum population. No disease assumed epidemic form, and there was a noticeable decrease in the number of cases and of deaths from phthisis and dysentery. **Health of lunatics.**

Sanitation.

[Report of the Sanitary Board, Bengal, and the Sanitary Engineer, Bengal, 1917.]

Sanitary works. 524. The total cost of sanitary work carried out by Government, District Boards, municipalities and private individuals during the year 1916-17 is returned at Rs. 15,19,316, as against Rs. 14,60,006 for the preceding twelve months. The expenditure comprised in this total is so lacking in uniformity, however, including as it does the construction of reservoirs for agricultural purposes, the acquisition of a burial-ground and the construction and maintenance of dispensaries that the figures have no clear statistical value.

Sanitary Improvements. 525. The actual capital expenditure on works of sanitary engineering amounted only to Rs. 3,32,108, as against Rs. 4,61,894 in the previous year, the falling-off being due to the continued policy of economy imposed by financial conditions. Of the total expenditure Rs. 1,95,293 was on account of water-works and Rs. 1,36,815 on account of drainage schemes.

Sanitary Board. 526. During the year the Provincial Malarial Committee was amalgamated with the Sanitary Board, as it was found that the work of the two bodies overlapped, there being few schemes of sanitation which do not have a direct bearing on the question of the prevention and mitigation of malaria, and it was considered that an enlarged Sanitary Board would be a stronger and more useful body.

Mines Board of Health. 527. Excellent work was done by the Mines Board of Health in checking and controlling outbreaks of small-pox, cholera and malaria, in the mining settlement in the Asansol subdivision of the Burdwan district. The Mines Board of Health has the advantage not only of dealing with a comparatively small area and with a population largely under the control of the collieries, but also of being able to exercise special powers under the Bengal Mining Settlement Act and the Epidemic Diseases Act; but even so the diminution of disease in the mining settlement shows, as the Sanitary Commissioner remarks, "the remarkable effect of organized control and should serve as an object-lesson to all District Boards".

Development of the Sanitary Department. 528. The year under review witnessed a continued development in the activities of the Sanitary Department, due to the growth of interest in questions of public health, and the closer attention paid to the sanitary organization of local bodies, as well as to the special enquiries and experiments which were in progress.

Vaccination.

[Annual Statistical Returns and Short Notes on Vaccination in Bengal for the year 1917-18. Statistics of British India, Part V—Area, Population and Public Health.]

Small-pox. 529. During the last three years there has been a progressive and satisfactory decline in the mortality from small-pox, which was 32,785 in 1915, fell to 13,890 in 1916, and in the year under review reached the low figure of 7,010 which is only half the annual average for the preceding quinquennium.

Vaccination. 530. The reported number of vaccinations was 1,614,601, or 12,948 less than in the previous year, but there was an increase of 8,191 in the number of persons vaccinated. The reduction in the number of vaccinations which occurred in several districts is ascribed partly to the diminished prevalence of small-pox and partly to the fact that the full staff of vaccinators was not at work in consequence of epidemics of malaria. Free vaccination was continued in the 24-Parganas and one subdivision of Bakarganj, and was introduced in Jalpaiguri, at the cost of the District Board, as well as in the Asansol mining settlement: in all these districts there was a marked increase in the number of operations. On the other hand, free vaccination had to be discontinued in a thana of the Faridpur district, where it had been introduced as an experimental measure in the previous year, as the people elsewhere refused to pay fees to the licensed vaccinators.

The Poisons Act.

[Report on Working of the Poisons Act, I of 1904, during 1917.]

Working of the Poisons Act.

531. In addition to the measures taken in previous years to make the provisions of the Act known, vernacular notices were distributed to the public in certain districts. The total number of licenses granted during the year throughout the Presidency, including Calcutta, was 178 under section 2 and 198 under section 4, as compared with 172 and 301, respectively, in the previous year. In Calcutta, the total number of licenses issued under both the sections was 112, against 107 in 1916. In Bogra district only five licenses were issued, as against 93 in 1916 when 83 Kabirajes unnecessarily took out licenses under a misapprehension. In Calcutta there were again no prosecutions: outside that town there were 16, all of which ended in conviction.

CHAPTER VII.—INSTRUCTION.

General System of Public Instruction.

See

General Administration Report for 1911-12, Part II, pages 264—273.

Education.

[Report on Public Instruction in Bengal for 1917-18. Statistics of British India, Part VII—Educational.]

The work of the Education Department during the year under review suffered from the exigencies imposed by the war, the consequent restriction of expenditure and the paucity of superior staff. Altogether two-fifths of the European officers of the Indian Educational Service were detached for duty in the Indian Army Reserve of Officers, in addition to officers on deputation to the Government of India or the University of Calcutta.

Educational Institutions and Expenditure.

532. The growing demand for education among the people of Bengal and the natural growth of the population led to an increase in the number of educational institutions by over 2,500 and to an addition of 46,000 in the number of scholars. Nearly 2 millions were in various stages of education, there being approximately 1 girl at school to every 5 boys. The total expenditure on education amounted to nearly 255 lakhs, of which 82½ lakhs were contributed direct by Government, 14⅓ lakhs came from the funds of local bodies (nearly 11½ lakhs consisting of grants placed at their disposal by Government), 114 lakhs were derived from fees and 44 lakhs were obtained from endowments, subscriptions and other sources. The expenditure on different branches of education is shown in the following statement, together with the number of scholars in the different classes of educational institutions :—

DIRECT EXPENDITURE.

	Rs.	Percentage of total.	Number of pupils on 31st March 1918.
Colleges	30,40,529	11·9	25,265
Secondary Schools ...	91,77,686	35·9	413,162
Primary „ ...	46,66,615	18·3	1,409,316
Special „	15,93,455	6·2	45,208

INDIRECT EXPENDITURE.

	Rs.	
University	15,84,408	6·2
Direction and inspection ...	10,85,004	4·2
Scholarships	4,04,366	1·6
Buildings, furniture and apparatus	25,44,238	10·0
Miscellaneous ...	13,97,238	5·5

Collegiate education.

533. Owing to the establishment of the Carmichael College at Rangpur, the number of Arts Colleges in Bengal increased to 34, or one-fourth of the total number in British India ; and there is a persistent demand for the creation of more. Some colleges have already more students than several of the British universities. The Ripon College, for instance, had 1,874 students in the year under review, the Vidyasagar College 1,847, the City College 1,683 and the Bangabasi College 1,447. The Government colleges had

more modest numbers, but the Presidency College had 1,035 on its rolls ; the Dacca College, with 943 students, reached the limits of possible expansion, and there were 786 students on the rolls of the Rajshahi College. The average number in private colleges was nearly 500 and rose to over 900 in Calcutta. The concentration of students in Calcutta is as noticeable as ever, the number on the rolls of colleges of all kinds being 2,375 more than in the previous year. The absence of recreation grounds is one of the disadvantages of college life in Calcutta, but when one is provided, the students do not always make good use of it. The Presidency College, for instance, has the use of a ground on the Maidan, but the Director reports : "A few enthusiasts represent the college in league matches. Practically no one plays cricket, football or hockey except those who constitute the college team". Thirty-four, however, of the students in the Presidency College, or 1 in every 30, joined the Indian Defence Force.

Altogether 25,265 students were reading in the different colleges, including 191 ladies. Nearly one-third of the total number were Brahmans, while under one-tenth were Muhammadans.

Secondary education of Indian boys.

534. The increasing demand for secondary education and the unpopularity of schools in which the vernacular is the only medium of instruction are exemplified by the fact that there was an addition of 59 high and middle English schools, while the middle vernacular schools decreased by 35. The Director is of opinion that schools of the class last mentioned seem doomed to die out : the number of pupils in them is now only 18,587, or 4½ per cent. of the total attendance at secondary schools. On the other hand, during the last three years the number of high schools has advanced by 143 and in the year under review aggregated 731, the attendance at them being over 226,000. Altogether 21 schools conducted manual classes : the scheme is still in an experimental stage, but a satisfactory feature is the general keenness with which boys have taken to the work.

Primary education of Indian boys.

535. The total number returned as attending boys' primary schools on 31st March 1918 was nearly 1,183,000, of whom all but 157,000 were reading in lower primary schools and 900,000 were in infants' classes. There was an increase in the attendance at lower primary schools by 26,000, but the number in upper primary schools fell by 3,000. The steady decrease of the latter schools during late years is attributed mainly to the unpopularity of a purely vernacular education in Bengal ; in support of this explanation may be mentioned the fact that the pupils in the primary classes of secondary schools outnumber those attending upper primary schools. The growth in the number of pupils in lower primary schools was shared in by all parts of the Presidency except the Burdwan Division, where a slight decrease occurred, which is attributed to high prices and the straitened circumstances of the agricultural classes. The number of Hindu pupils in schools of both the upper and lower class fell by 1,000 and that of Muhammadans rose by 24,000. The Muhammadans under instruction outnumbered the Hindus by 35,000.

The training of teachers for Indian schools.

536. The David Hare Training College, Calcutta, and the Dacca Training College continued to do useful work in the training of English teachers for secondary schools. The students under training included not only teachers of Government and aided schools, but also inspecting officers and outside candidates : the Dacca Training College had also on its rolls three officers who had been deputed for a course of training by His Exalted Highness the Nizam of Hyderabad. For the training of vernacular teachers for secondary schools and *guru*-training schools there were five Government training schools (one in each of the five divisions), and one aided training school maintained by the Church Missionary Society at Krishnagar. The total number of *guru*-training schools was 119, of which 114 were managed by Government, 4 were aided institutions and 1 was unaided. Six of these schools were reserved for the training of *muallims*. The present facilities for training teachers of primary schools are recognized to be inadequate, and a comprehensive scheme has been prepared in order to improve the quality and increase the supply of trained teachers.

Professional and technical education.

537. The demand for men trained in mechanical, electrical and mining engineering, due to the industrial development of the country during the war, led to a large increase in the number studying those courses at the Sibpur

College, while there was a falling-off in the number of candidates for admission to the Civil Engineering classes: there were not even enough to form a first year Sub-Overseer class. Not only are the Mining, Mechanical and Electrical Engineering classes more popular, but they are reported to attract students of a better type and greater promise. A scheme for linking up the apprenticeship system of railway and other workshops with the Mechanical and Engineering classes has been prepared and is now under consideration. Applications for admission to the Government Weaving Institute at Serampore continued to be largely in excess of the accommodation, and there was an improvement in the qualifications of the candidates. There were five weaving schools at outlying centres, and a scheme of peripatetic instruction has been started to supplement the work done at them. The popularity of the Government Commercial Institute in Calcutta, where the number of students fell to 116 in 1915-16, appears to have revived, 64 pupils joining the day classes and 207 the evening classes. Law continued to be as popular as ever, the attendance in law colleges and classes rising to 3,054, or approximately one-seventh of the number studying in arts and science in arts colleges.

Education of Indian girls and women.

538. The steady though slow expansion of female education continued, the number of public institutions rising to 10,189 and the number of girls under instruction to nearly 300,000. The actual increase in the latter was 14,000, of which the Muhammadans contributed 10,000 and the Hindus 4,000. There is now one Muhammadan girl to every five Muhammadan boys at school, and the Muhammadan girls receiving education are nearly as numerous as those of the Hindu community.

The great majority of the girls and women are in the primary stage of education, and there are numerous types of schools at which elementary education is given, such as model primary schools, urban schools, panchayati union schools, peasant schools and home schools conducted by elderly *zenana* ladies in their own homes. In addition to this, *zenana* education is given by *zenana* teachers specially engaged for the purpose. It is interesting to observe that a scheme which aimed at giving secondary education on lines different from those followed in boys' schools was introduced on an experimental basis for three selected schools under mission management, but proved popular in only one school. Needlework is said by the Director to have received "a great impetus" in Eastern Bengal owing to the popularity of the Lady Carmichael Diploma Examination.

The chief needs at present are the provision of adequate rates of pay for teachers, facilities for training them, the strengthening of the female inspecting agency and the improvement of the schools themselves. The majority of the girls' primary schools are inefficient and badly housed, while local bodies, with inelastic incomes and growing demands on their resources, have not the means to make them efficient or to provide proper accommodation. Many schools are unable to maintain whole-time teachers; in others the salaries of teachers are so inadequate that the profession offers little attraction. Trained female teachers are necessary to replace the old and often inefficient *pandits* employed in girls' schools. Few teachers, however, will undergo training unless they are assured of an adequate pay; as in the case of male teachers, improvement in teaching capacity cannot be effected till a premium is put on the services of those who are trained. Schemes for the establishment of training classes have been prepared, but want of funds has hitherto precluded their execution, and the same difficulty has prevented the introduction of other reforms. With the help, however, of the 9 lakhs grant given by the Government of India, the pay of whole-time teachers in girls' primary schools, aided by the District Boards, has been increased by Re. 1 a month, and a considerable portion of the subvention of 5½ lakhs recently given by that Government is to be devoted to the advancement of female education. This subvention enables the Government of Bengal to increase the pay of teachers in girls' schools in municipal areas by Rs. 2 a month and in District Board areas by another rupee a month, to establish each year two model primary schools with quarters for female teachers and 30 panchayati union schools, to add to the female inspecting agency and to establish in Calcutta, on an experimental basis, a school for training Moslem women teachers.

Education of Europeans.

539. There were 62 schools for general education and 18 for special instruction attended by 10,046 pupils, viz., 9,561 Europeans and Anglo-Indians and 485 non-Europeans. It is regrettable that more than half of the total number of teachers should be untrained, but at present there is only one institution in the Presidency for the training of female teachers and none for the training of male teachers. An attempt was made during the year, under the joint auspices of the Diocesan Board and the Young Women's Christian Association and with the assistance of the Education Department, to improve the technical qualifications of teachers, lectures being given for the benefit of the less qualified teachers in schools in Calcutta, and examinations in the theory and practice of teaching being held at the end of the course. The result was encouraging, and it is intended to continue the scheme. An endeavour is being made to develop the teaching of domestic science in girls' schools. At Dow Hill Girls' School a special domestic science block was started, the subjects being made compulsory for all girls in the upper classes ; and a scheme for the upper classes of all grades of schools has been prepared.

Education of Muhammadans.

540. The aggregate number of Muhammadans at school and college rose to 899,679, or 46 per cent. of the total number of all creeds. The Muhammadans are still largely outnumbered in the arts colleges, where they represent only 10 per cent. of the students, and the ratio is only 7 per cent. in professional colleges and in law colleges and classes. It is considerably higher, however, in some Government arts colleges, being 21 per cent. at Dacca and 19 per cent. at Rajshahi. In order to secure to Muhammadans a fair number of vacancies in colleges and schools, orders have been issued reserving for those who are qualified for admission 25 per cent. of the admissions to Government and aided arts colleges, while a prescribed proportion of places, rising in some cases to 50 per cent., has been reserved in every Government high school. At present Muhammadans account for one-fifth of the pupils in high schools and for one-third in middle schools, while the proportion rises to a-half in primary schools. There was a small decrease in the number reading in secondary schools, which is attributed to Muhammadan agriculturists being compelled by straitened circumstances to withdraw their sons. The attendance at *madrasahs* rose slightly and there was a substantial increase of 34,000 in the attendance at *maktabs*.

The difficult question of housing Muhammadan students in Calcutta under suitable conditions was partly solved by the establishment of the Carmichael Hostel and by the addition of two wings to the Baker Hostel.

Literature and the Press.

[Statistics of British India, Part VII—Educational.]

The Bengal Library and working of Act XXV of 1867.

541. The number of publications registered during the year was 3,658, viz., 2,612 books and 1,046 issues of periodicals. Of the books 2,441 were original publications and 171 republications and translations. There were 84 cases of evasion of the law of book registration under Act XXV of 1867.

Literary publications.

542. The year was very unfavourable for publishing on account of the abnormal dearness of paper and other printing materials. "Poetry" published was not remarkable and no work of first class merit was produced. A few interesting biographies were published, of the most notable being "Dwijendra Lal" by Deva Kumar Chaudhuri and "Samaru Begum" by Brajendra Nath Banarji. No drama of outstanding interest was produced, although "Nepali Bangala Natak" edited by Nani Gopal Banarji, a compilation of four Bengali plays in song discovered in Nepal, is worthy of mention. There was an abnormal increase in the output of fiction, which points to the rapidly growing popularity of light literature among general Bengali readers. There was a considerable decline in the volume of historical literature produced, but some valuable books on language were published. There were no publications of special merit under the heads "Politics and Religion". It is noteworthy that

Muhammadan writers have begun to interest themselves in the development of Bengali literature and some of them published novels in Bengali.

The Press.

543. The total number of newspapers and periodicals—English and vernacular—printed and published in Bengal during the year was 320, of which 209 were published in Calcutta. Of these, 162 were written in Bengali, 105 in English, 8 in Hindi, 6 in Urdu, 4 in Assamese and 1 each in Garo, Nepali, Persian, Guzrati and Sanskrit.

Twenty-nine periodicals and newspapers were started, 4 old papers were revived and 51 ceased to exist.

Working of the Naval and Military News (Emergency) Ordinance and the Indian Press Act.

544. The attitude of the Indian Press in regard to the war was on the whole satisfactory. No prosecution was instituted under the Indian Naval and Military (Emergency) Ordinance, 1914, as such indiscretions as came to notice were dealt with by warnings from the Press Censor. Except in the matter of internal politics the Muhammadan press exhibited a more restrained tone than in previous years. Four leaflets were declared forfeited and security was demanded from thirty-two presses and twelve newspapers under the Indian Press Act. Eight of the papers furnished security; two ceased publication in consequence of the demand, and no issue of the two others appeared.

Topics discussed in the Press.

545. The main topic of discussion during the year was the question of Home Rule, particularly after the pronouncement of the Secretary of State, foreshadowing the early introduction of constitutional reforms. There was practical unanimity in the vernacular press, including the Moslem section, in the demand for substantial changes, and the attitude of the Anglo-Indian papers aroused considerable bitterness. Much interest was displayed in the War Loan, the recruitment of Bengali soldiers, and the Indian Branch of the Indian Defence Force. The Indian press were either unable or unwilling to recognize the existence of organized revolutionary crime in the Presidency and, in consequence, they failed to appreciate the necessity of the measures taken to combat it. The administration of the Defence of India Act was adversely criticised, and its repeal was strongly urged. Much capital was made out of the refusal of Government to bring the détenus to trial before the regular Courts, and highly coloured accounts were published of the hardships to which they were subjected. The internment of Mrs. Besant aroused much indignation. The criticisms of the Muhammadan section of the press were directed particularly to the case of the Ali brothers for whose release repeated demands were made. The Government of India's decision to appoint a Committee to enquire into sedition and anarchy in India was received with qualified satisfaction and with considerable apprehension that this was merely a preliminary to more repressive legislation.

Literary Societies.

See

General Administration Report for 1911-12, Part II, pages 278—279.

Arts and Sciences.

Government School of Art, Calcutta.

546. There were 267 students on the rolls on the 31st March 1918, against 282 in the previous year. Of these 117 belonged to the Elementary Department, 55 to the Industrial Department, 51 to the Fine Art Department, 42 to the Draftsman Department and the remaining 2 to the Teachers' Department. Classified according to race or creed there were 4 Christians, 12 Muhammadans, 1 Buddhist and 250 Hindus. During the year under review a few outside commissions were executed by the staff and the students, viz., architectural decorations for the Victoria Memorial Buildings, the new Police Buildings at Lallbazar, the Railway Buildings at Allahabad and others. The relief work done for these purposes has been considered

very satisfactory. At the Final Examination of the school held in 1917-18, 28 candidates appeared and 26 qualified for certificates. The total expenditure incurred during the year was Rs. 34,939, against Rs 41,173 in 1916-17.

Government Art Gallery, Calcutta.

547. During the year under review some selected examples of Indian paintings, metal wares, textile fabrics, etc., were purchased for the gallery. The valuable and interesting collections of jewellery and other objects of art kindly lent to the Museum by Lord Carmichael have been retained in the gallery for a further period. Two hanging wall cases for the exhibition of the very valuable collection of embroideries acquired from Tibet were constructed in the south room of the Art Gallery on the first floor parallel to the cases on the wall of the south side in that room.

Other Schools of Art.

548. According to the returns there were 4 other schools of art in the Presidency with 379 pupils reading in them. In 1916-17 the corresponding figures were 4 schools and 385 pupils. During the year the expenditure on these schools was Rs. 21,039, of which Rs. 1,800 was contributed by Government. The corresponding figures for the previous year were Rs. 20,077 and Rs. 1,650, respectively.

Music Schools.

549. There were six music schools in the district of Bankura with a total of 80 students. The corresponding figures for the previous year were 4 and 50, respectively. One of these schools received a grant-in-aid; it is at Vishnupur, a town once famous as a seat of Hindu music.

Civil Engineering College, Sibpur.

550. On the 31st March 1918 there were 353 students on the rolls of the Sibpur Civil Engineering College. The numbers in the various departments were 86 in the Engineer Department, 214 in the Apprentice Department and 53 in the Artizan Department. The total number of Muhammadans attending the college was 14. Of these 3 were in the Engineer Department, 6 in the Apprentice and 5 in the Artizan classes. Classified according to race and creed there were 56 European and Anglo-Indian students, 1 Indian Christian, 282 Hindus and 14 Muhammadans. The total expenditure of the college during the year 1917-18 amounted to Rs. 2,16,076, the cost from Provincial Revenues being Rs. 1,93,477. In 1917-18, 14 students appeared at the B. E. Examination, of whom 11 or 78·6 per cent. passed; 34 appeared at the I. E. Examination and 17 or 50 per cent. passed. During the year Architecture appeared for the first time as a definite subject for the B. E. Examination. The value of the work turned out in the workshops amounted to Rs. 21,940. Three artizans left during the year, their total earnings amounting to Rs. 592. Approval of Government was accorded to the introduction of a three-year Civil Overseer course after the close of the year under report. A proposal for the affiliation of the apprentice system of large Railway and other workshops with the Mechanical Engineering classes of the Apprentice Department of the college, with a view to both improving and increasing the output of both mechanical engineers and mechanics, is under consideration of Government.

Dacca School of Engineering.

551. There were 157 students in the Apprentice Department, of whom 7 were under practical training with a view to qualify for the Upper Subordinate Certificate. The number of artizans was 71, of whom 10 completed the training during the year. Most of the trained artizans have obtained employment. The total value of the work turned out was Rs. 2,025 for outside work and Rs. 3,399 for the improvement of the school and the workshop itself. The total expenditure during the year under review amounted to Rs. 52,613, against Rs. 52,995 of the previous year. The number presented at the Overseer Examination was 36, of whom 29 came out successful. At the Sub-Overseer Examination 50 candidates appeared and 40 passed.

Mining Instruction in the Coalfield.

552. Mr. Read continued in the post of Mining Instructor in the Coalfields of Bengal and Bihar and Orissa. Babu Hemanta Kumar Sen was again appointed as Vernacular Lecturer in Bengali for Bengal Coalfields and in Hindi for Bihar and Orissa. The revised syllabus of the lectures was introduced during the year under review. Thirty-three candidates appeared at the Final Examination of whom 26 passed. A proposal for practical training in Mine Surveying at Collieries of certain selected passed students of the Land Surveying School at Mainamati, with a view to employing them as mine-surveyors, was sanctioned by Government, but could not be given effect to during the year under report.

Pleaders' Survey Examination.

553. During the year under review the short training classes were held in Dacca only. At the examination 1 passed out of 7 candidates. The question of the training of an agency to execute civil court commissions is under the consideration of the Board.

Survey Education.

554. During the year under review the Amin Examination Board organised a system of education for students of the Survey classes attached to the Dacca School of Engineering, the Bayley-Govindalal Technical School at Rangpur, Elliot-Bonamali Technical School at Pabna and the Diamond Jubilee Industrial and Technical School at Rajshahi. The first examination under the auspices of the Board will be held in September 1918. One new feature will be a practical examination to be held at each centre by a touring examiner.

Joint Technical Examination Board.

555. In the Sub-Overseer Examination held in March 1918, 88 passed out of 147 candidates, and in the Overseer Examination 53 out of 73. The figures for the Overseer Examination include 9 candidates appearing in the Mechanical and Electrical Branch of whom 7 were successful. A Supplementary Sub-Overseer Examination will be held in July 1918 for Sibpur candidates only, whose session now opens in November instead of May. Revised syllabuses for Overseer and Sub-Overseer courses as well as revised rules for those examinations are now under the consideration of Government. Figures in this paragraph include candidates from Bihar and Orissa.

City and Guilds of London Institute Technological Examination.

556. Forty-nine candidates appeared in the textile subjects and 34 in non-textile subjects. Of these 32 were successful in the former subject and 13 in the latter. Special examinations in domestic subjects were held in Calcutta and at Kurseong. Thirty-six candidates appeared, of whom 17 passed.

Government Weaving Institute at Serampore and outlying centres.

557. The session of the Government Weaving Institute at Serampore opened with 35 students in the higher classes and 44 in the Artizan class. The period of instruction in the higher classes has been extended from 2 to 3 years. Dyeing will be introduced in the next session. The total direct expenditure on the school was Rs. 23,863. Fourteen candidates appeared in the Final Examination, of whom 13 passed. At the end of the year a scheme for peripatetic instruction in weaving was approved by Government and operations have already commenced at Asansol. A proposal for the appointment of 6 more peripatetic instructors is under the consideration of Government.

At the Maldah Weaving School the expenditure from Provincial revenues was Rs. 1,390, at Cox's Bazar Rs. 1,449, at Bankura Rs. 1,538, at Pabna Rs. 1,331 and at Tangail Rs. 813. The average number of pupils in these outlying schools was 18, 11, 17, 18 and 19, respectively.

Schools for Juvenile Offenders.

558. The draft Children's Bill drawn up by Mr. Melville, together with a comprehensive note on the whole question by Mr. Evan E. Biss, is still under the consideration of Government.

Government Commercial Institute, Calcutta.

559. The number of students on the rolls of the Government Commercial Institute in the Day and Evening classes was 271, against 276 in 1916-17. Of these 64 joined the Day and 207 the Evening classes. The total expenditure of the Institute was Rs. 22,976, of which Rs. 19,038 came from Provincial revenues. The corresponding figures for the previous year were Rs. 20,584 and Rs. 16,388, respectively. At the Final Examination held in 1918, 4 candidates passed out of 10 and at the special examination 34 passed out of 56.

"B" Class.

560. The proposal to start a "B" class at the Darjeeling High English School is still under consideration. During 1917-18, 57 candidates appeared at the "B" class Final Examination of whom 37 passed. The corresponding figures for the previous years were 46 and 25, respectively.

CHAPTER VIII—ARCHÆOLOGY.

Archæology.

[Annual Report of the Archæological Survey of India, Eastern Circle, for 1917-18.]

Establishment.

561. Dr. Spooner was in charge of the Eastern Circle throughout the year, except for a period of four months, viz., from 20th June to 19th October, during which he officiated as Director-General of Archæology. Mr. Ch. Duroiselle, Assistant Superintendent for Epigraphy, Burma Circle, acted for him as Superintendent, Eastern Circle, during the period.

The headquarters of the Superintendent, Eastern Circle, were transferred from Calcutta to Bankipore under orders of Government in July, and the Superintendent was placed under the administrative control of the Government of Bihar and Orissa.

Monuments and Antiquities.

562. The only original conservation work undertaken during the year was in connection with the mosque at Masjidbari in the district of Bakarganj. The total expenditure on special and annual repairs amounted to Rs. 19,320. The largest individual items of expenditure was due to the thorough repairs to the tomb of Khan Jahan Ali and to the well-known mosque of Satgumbuz in Bagerhât, Khulna, the repairs undertaken in connection with the 14 temples at or near Vishnupur in the district of Bankura, the Jatar Deul temple in the Sundarbans in the district of the 24-Parganas. Work is still in progress on the cloisters of the Adina mosque at Pandua in the district of Malda and in the mosque at Masjidbari in the district of Bakarganj.

Two monuments of historical or archæological interest were declared to be protected monuments during the year under the Ancient Monuments Preservation Act (Act VII of 1904). In ten cases agreements under section 5 of the Act were made between the Secretary of State and the owners of the monuments.

Three monuments have been declared to be ownerless, and notifications under section 4(*b*) of the Act were published authorizing Commissioners of Divisions to assume guardianship with regard to these monuments.

Working of the Treasure Trove Act, VI of 1878.

563. Finds of coins were reported from Rajasan in the district of Dacca, Chamugram in the district of Murshidabad, and Sahazadpur in the district of Pabna. The Rajasan treasure, being a gold coin of the late Gupta period, was acquired by Government and made over to the Dacca Museum on loan. The acquisition of the other two finds has been recommended by the Government numismatist.

An iron cannon of Muhammadan times, found at Jugudal in the district of Dinajpur, was made over to the Barendra Research Society for deposit in their museum at Rajshahi.

CHAPTER IX.—Miscellaneous.

Ecclesiastical Jurisdiction.

See

General Administration Report for the year 1911-12, Part II, page 282.

Ecclesiastical.

Establishment.

564. The Ecclesiastical Establishment in Bengal during the year, paid entirely or in part by Government, consisted of the Lord Bishop of Calcutta, the Archdeacon of Calcutta, the Domestic Chaplain to the Bishop, the Registrar of the Diocese, 11 Chaplains of the Church of England, 2 Chaplains of the Church of Scotland, 10 Clergymen of the Additional Clergy Society or other Societies, the Most Reverend Archbishop Dr. Brice Meuleman, S.J., and 4 priests of the Roman Catholic Church.

Chemical Examiner's Department.

[Report of the Chemical Examiner for the year 1917. Statistics of British India—Part VI—Administrative and Judicial.]

General.

565. Rai Chuni Lall Bose Bahadur, First Assistant Chemical Examiner, again held charge of the department throughout the year.

Total of cases.

566. The analysis performed numbered 3,132, as compared with 3,125 in the preceding year. One hundred and twenty samples of ghee were received for examination from various sources in connection with the Calcutta Municipal (Amendment) Act, I of 1917, which was passed during the year in consequence of a strong public demand for action against adulteration of ghee. Of these sixty were found to be adulterated.

Medico-legal work.

567. In the Medico-Legal Department 1,526 cases were examined during the year, representing a decrease of 194 cases. The total number of articles examined was 2,749, as compared with 3,185 in 1916. The viscera of 747 persons were examined in 1917, as against 868 in the previous year, and the percentage of detection was 35·65, as compared with 41·96 in 1916. In suspected animal-poisoning cases, the percentage of detection fell from 61·16 to 60·24.

Veterinary Department.

[Report of the Veterinary College and of the Civil Veterinary Department, Bengal, for the year 1917-18.]

Bengal Veterinary College.

568. The number of students on the roll of the Bengal Veterinary College at the beginning of the session was 165, but the number at the end of the session was 157. Fifty-five of these came from Bengal, 50 from Bihar and Orissa, 25 from Assam, 11 from the United Provinces, 9 from Madras, 3 from Burma, 2 from Ceylon, 1 from the Central Provinces and 1 from Port Blair. Out of 157 students who appeared at the examination 107 passed. Thirty-one students graduated from the College, the percentage of passes being 62·0.

College Hospital.

569. During the year 2,366 cases were treated and 736 operations performed at the College Hospital. There were 6,294 prosecutions under the Prevention of Cruelty to Animals Act, but only 295 animals were sent to the hospital for treatment.

570. All the stables within the area under the operation of the Glanders and Farcy Act in Calcutta and its neighbourhood were regularly inspected during the year. Glanders was detected in two stables and *surra* in three. In the mufassal 27 deaths from glanders were reported, as against 67 in the previous year. **Glanders and Farcy Act.**

571. There was a marked increase in the mortality of animals from contagious diseases during the year, the total number of deaths reported being 26,486, as against 8,415 in the previous year. The increase was due to abnormally severe outbreaks of rinderpest in several districts of the Presidency, this disease being responsible for 21,126 deaths compared with 5,443 in the preceding year. The mortality was heaviest in the districts of the 24-Parganas, Noakhali, Rangpur and Bakarganj. The staff of the Veterinary Department dealt with 365 outbreaks of rinderpest and inoculated 53,124 animals, against 161 outbreaks and 20,498 animals in the preceding year. There were also virulent outbreaks of rinderpest during the year all over Calcutta and its suburbs, the number being 113 as against 57 in the preceding year. Prompt steps were taken on each occasion to prevent the spread of the disease and inoculation was performed in 5,518 cases. **Civil Veterinary Department.**

The Itinerant Veterinary Assistants visited 11,520 villages and treated 67,333 animals, as compared with 10,047 villages and 57,462 animals in the previous year.

572. Two new dispensaries were opened in the district of Bakarganj during the year, bringing the total number of such institutions up to 27. The number of patients treated during the year was 34,889, as against 37,785 in the previous year. The decrease is attributed to the fall in the number of cases of foot-and-mouth disease. **Dispensaries.**

573. The number of stud bulls kept by Government and local bodies decreased from 71 in the previous year to 68. A good Montgomery bull was presented to the Veterinary Dispensary in Rangpur district by Babu Dukhaja Mohan Chaudhuri, a local zemindar. **Breeding of cattle.**

574. The subordinate staff of the Civil Veterinary Department consisted of one Deputy Superintendent, six Inspectors, four Staff Veterinary Assistants, six Reserve Assistants and 82 District Veterinary Assistants. **Staff.**

Zoological Garden, Calcutta.

[Annual Report of the Honorary Committee for the year 1917-18.]

575. In spite of a decrease in gate receipts the financial condition of the garden was satisfactory. The entrance receipts fell from Rs. 50,024-11 in the previous year to Rs. 44,564. Including the Government contribution of Rs. 20,000 the total receipts amounted to Rs. 1,02,159-10-1 and the total expenditure to Rs. 81,969-4-2, leaving a closing balance of Rs. 19,390-8-11. During the year 583,343 persons or 88,152 less than last year visited the garden. The number of mammals, birds and reptiles in the garden at the close of the year was 316, 2,026 and 199, respectively, against 318, 1,975 and 263 of the previous year. **Finance and Statistics.**

The garden was, as usual, open free to the public one day in each month and 53,480 persons availed themselves of the concession.

The War.

576. Such hostile aliens as were in Bengal continued to be interned at the Civil Detention Camps, while a few, who were released on parole, were allowed to live under supervision at their places of residence. **War.**

577. Contributions continued to be made towards war funds for the provision of motor-ambulances and other objects connected with the war. A large sum was contributed from Bengal to the first Indian War Loan. **Contribution and War Work.**

578. Combatant recruitment was confined in the earlier part of the year to the Bengali Regiment. The appointment of a Divisional Recruiting Officer for Bengal in April, the constitution of the Provincial Recruiting Board in **Recruiting.**

July and the efforts of the Regiment Committee, of which Dr. S. K. Mullick is the Secretary, resulted in a battalion being completed and sent to Mesopotamia in the autumn. In the latter part of the year a certain number of signallers and motor transport drivers were also enrolled. Combatant recruits were mainly drawn from the *Bhadralog* class, but the last four months of the year saw an increased proportion of cultivators enrolled.

As regards non-combatant recruitment, the Deputy Superintendent of Recruitment, Calcutta, kept up a continuous supply of marine ratings and skilled as well as un-skilled labour for overseas, railways and inland water transport. Half a labour corps was also raised from the eastern districts between April and July; after enrolment the men were transferred to Ranchi in Bihar and Orissa, where a composite corps was formed and subsequently sent to France. After the appointment of the Provincial Recruiting Board non-combatant recruitment in the districts was put on a systematic basis and by the end of the year recruits were coming in considerable numbers from many of the districts. The Divisional Recruiting Officer also enrolled large numbers of labourers and followers in Calcutta itself. It is satisfactory to note that the Presidency, although it fell short from time to time of certain ratings, never failed to supply the total quota of non-combatants assigned to it by the Central Recruiting Board.

The Indian Defence Force.

579. The European Branch of the Indian Defence Force supplied continuous drafts for three months' military training at Poona and they assisted the military authorities generally by providing men for guard duty throughout the year.

There were very few applications for enrolment in the Indian Branch (apart from the Calcutta University Corps and the Bengal Light Horse) and only 99 underwent the preliminary training. During the year under review, however, the Government of India sanctioned the formation of the Calcutta University Infantry and the Bengal Light Horse as parts of the Defence Force and the experiment was popular. Membership of the former was confined to *bonâ fide* students of whom 511 were enrolled.

Two hundred and eight members enlisted in the Bengal Light Horse, which was attached for administrative discipline and training to an Indian Cavalry Regiment.

Both the University Corps and the Light Horse began their three months' preliminary training in Calcutta.

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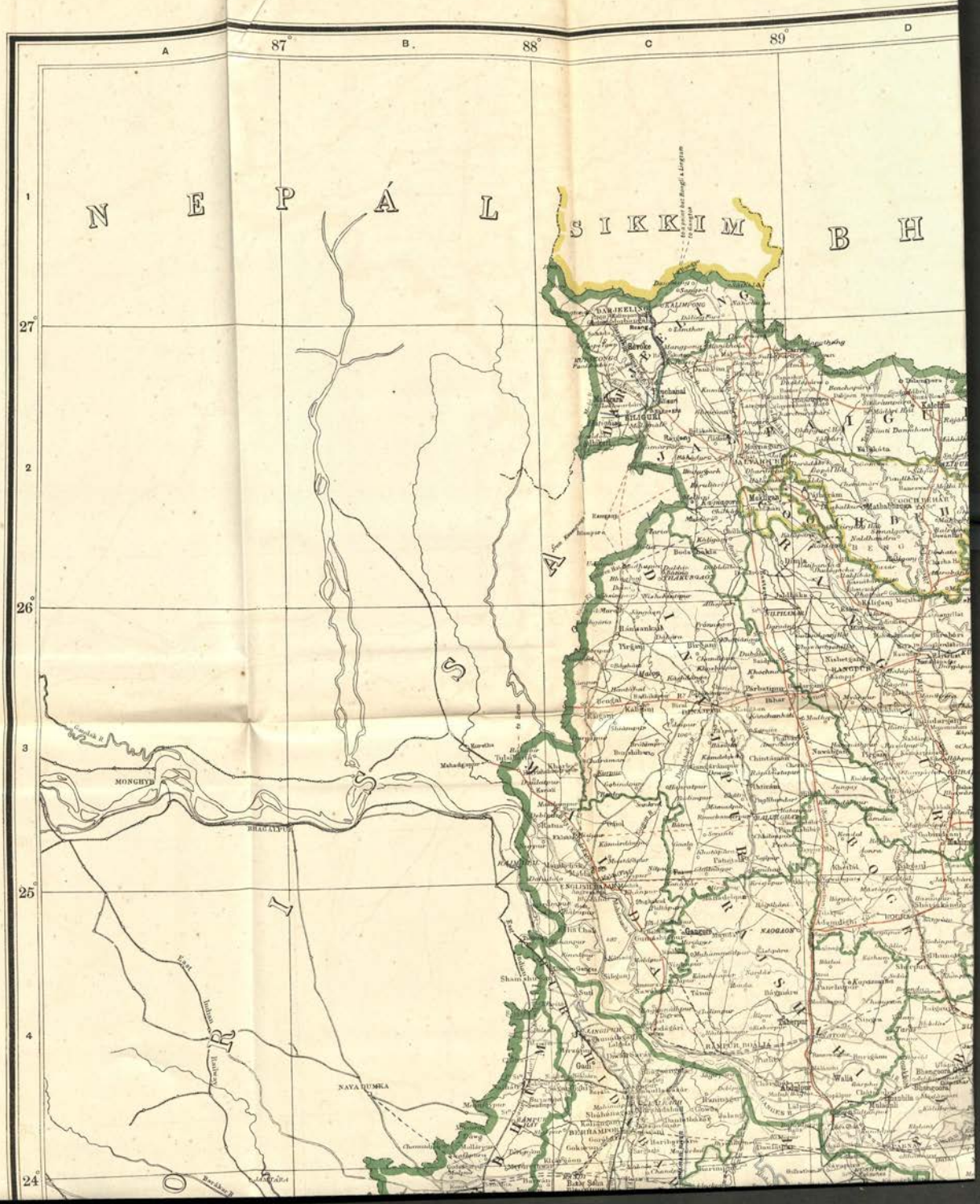
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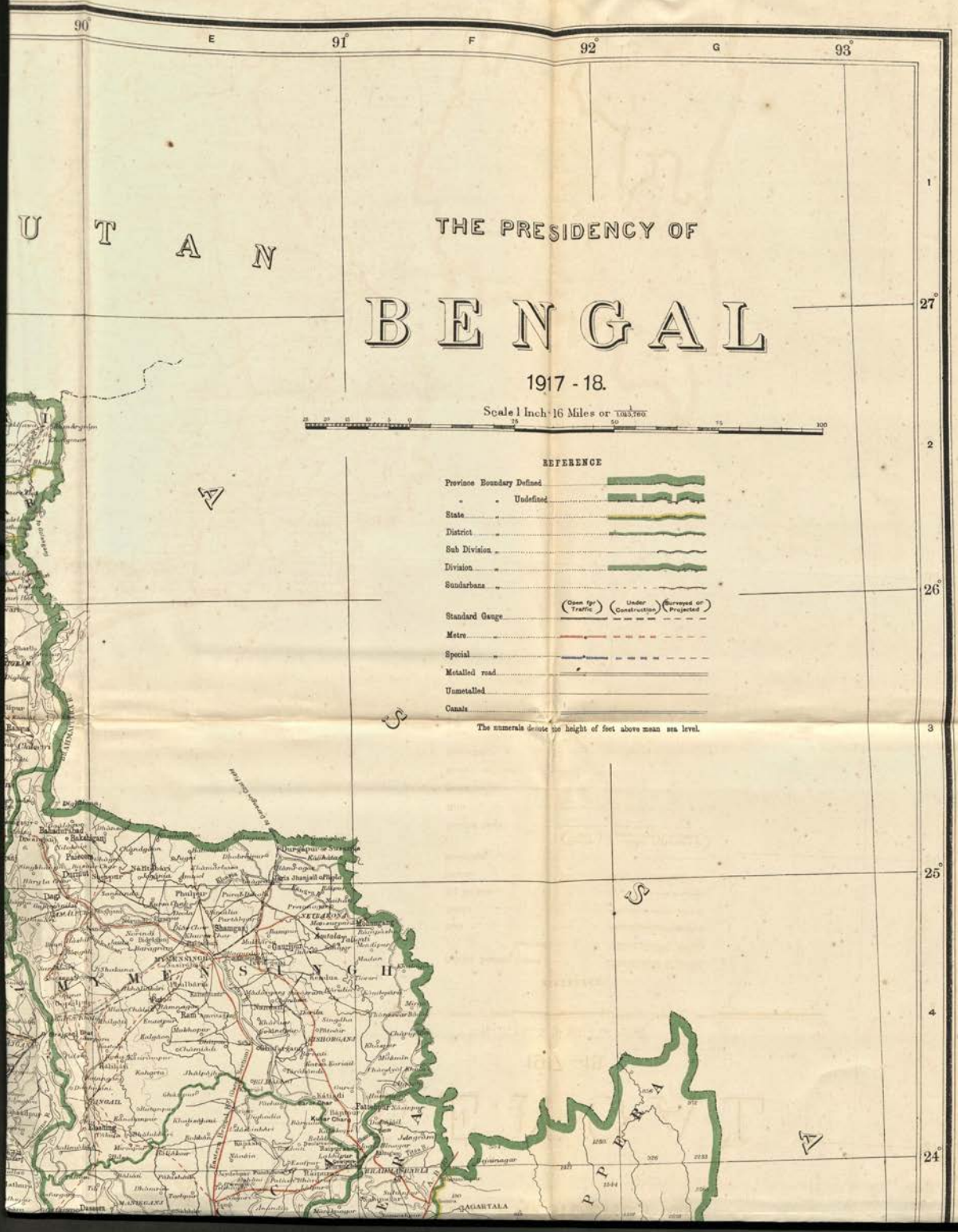
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THE PRESIDENCY OF
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1917 - 18.
Scale 1 Inch=16 Miles or 1/1,013,760
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State
District
Sub Division
Division
Sundarbans
Standard Gauge (Open for Traffic) (Under Construction) (Surveyed or Projected)
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Special
Metalled road
Unmetalled
Canals
The numerals denote the height of feet above mean sea level.
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PURULIA
BANKURA
BIRBHUM
MIDNAPORE
HOWRAH
CALCUTTA
24 PARGANAS
HOOGHLY RIVER
SUNDARBANS
BAY OF BENGAL
Dhámra R.
Mahánadi
NILGIRI
BÁRIPADA
CONTAI
TAMLUK
DIAMOND HARBOUR
Lighthouse
Rutnagar
Sattarmukhi R.
Mooriganga R.
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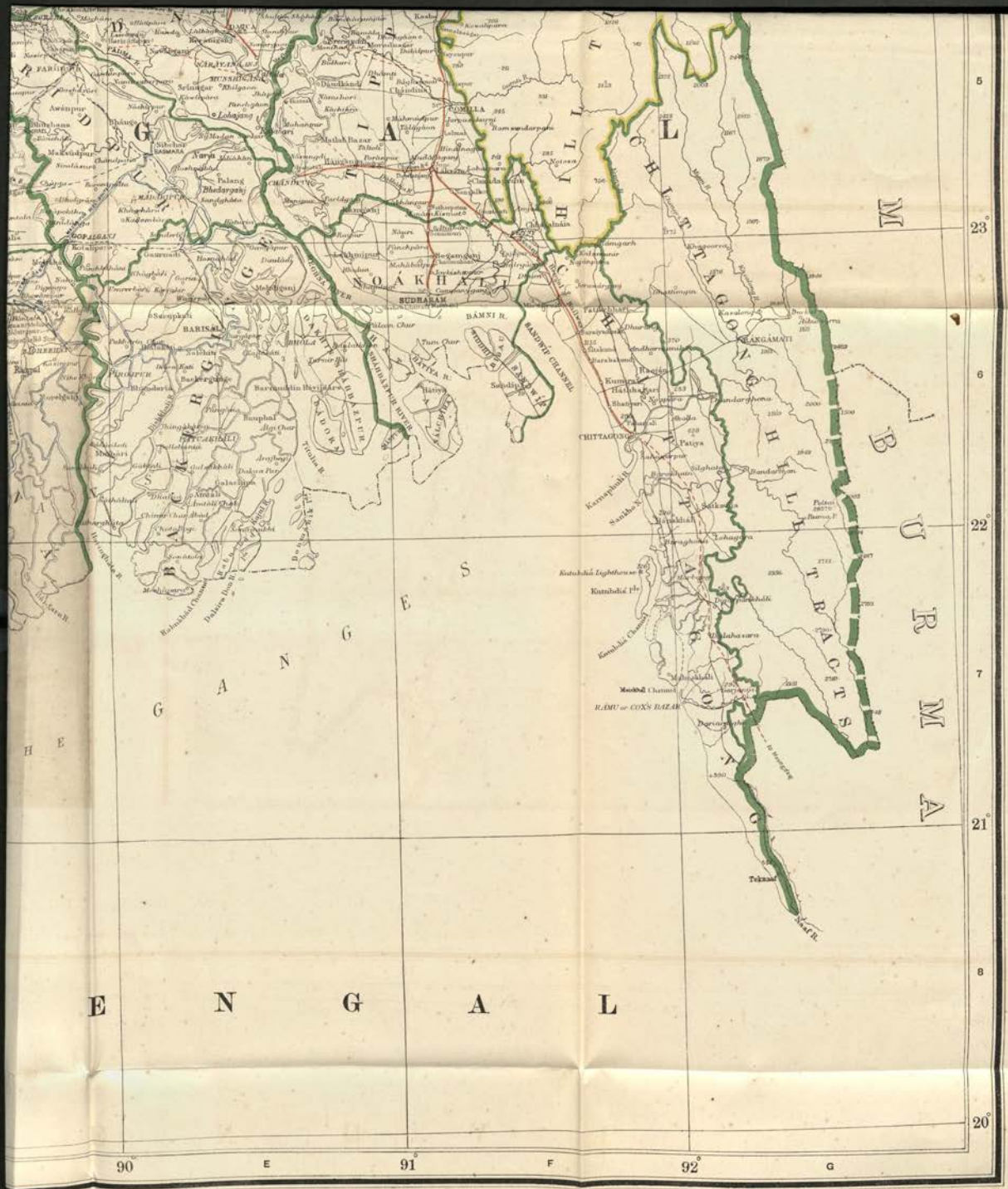

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